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ROYAL COMMISSION ON MATTERS OF HEALTH AND SAFETY
ARISING FROM THE USE OF ASBESTOS IN ONTARIO

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Mr. J. Bolan CUPE 1000 (Ontario Hydro)

Mr. D. Starkman Asbestos Victims of North America

Mr. T. Lederer Government of Ontario

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180 Dundas Street
Toronto, Ontario
Tuesday,
June 15, 1982
2:00 p.m. Session

VOLUME 40 B

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ROYAL COMMISSION ON MATTERS OF HEALTH AND SAFETY
ARISING FROM THE USE OF ASBESTOS IN ONTARIO

5 VOLUME 40 B

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25 180 Dundas Street
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5 180 Dundas Street
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2:15 p.m. Session
Volume 40 B

10 THE INQUIRY RESUMED PURSUANT TO RECESS

APPEARANCES AS HERETOFORE NOTED

15 DR. DUPRE: Well, this afternoon the Commission
welcomes Mr. Robert Wilson, the director of the health and
safety division of Ontario Hydro.

Mr. Wilson, will you come forward and be sworn,
please?

20 ROBERT WILSON, SWORN

THE WITNESS: I have two colleagues with me who
I may refer questions to. Perhaps they should be sworn.

25 MR. LASKIN: Well, why don't we see if we can
operate, because I think it would be easier for us by operating,
if you can give the answers. If you feel it necessary to consult
with your colleagues, we have been relatively flexible and informal
about that in the past, and we'll deal with it.

DR. DUPRE: Gentlemen, be seated.

30 MR. LASKIN: Mr. Chairman, I think just before
we start, my understanding is that there are certain representatives
of CUPE Local 1000 here, which is, as I understand it, one of
the unions involved with Ontario Hydro, and I assume have standing,

5 MR. LASKIN: (cont'd.) but I'm not sure of whether it has appointed a spokesperson.

10 Could we have your name, for the record?

15 MR. BOLAN: Jim Bolan.

MR. LASKIN: Mr. Bowan?

MR. BOLAN: Bolan, B O L A N.

20 MR. LASKIN: You are going to act as representative for your group and ask questions?

25 MR. BOLAN: Yes, I am. Yes.

DR. DUPRE Very well, Mr. Bolan. I shall be recognizing you when the time comes.

30 MR. BOLAN: Thank you.

EXAMINATION-IN-CHIEF BY MR. LASKIN

15 Q. Mr. Wilson, just...I know you have prepared some opening remarks for us, before you start could you, for all of our benefit, just tell us briefly your background and your... your educational background and your employment background and your present position with Ontario Hydro?

20 A. Yes. My name is Robert Wilson. I am the director of health and safety division of Ontario Hydro. I have held that position since 1977.

25 Prior to that, I was the manager of the radioactivity and...oh, I've forgotten...what?

THE WITNESS: Radioactivity management and environmental department.

30 THE WITNESS: The Radioactivity management, environmental protection department of the nuclear generation division. I held that position for a year, from the early part of 1977.

Prior to that, I was the manager of the health physics department of Ontario Hydro, which position I held since 1969.



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5 THE WITNESS: (cont'd.) Prior to that, I was the health physicist at the Douglas Point Generating Station, and before that I was the health physicist at the nuclear power generating station at Rolfton, Ontario, which position I assumed in 1960.

10 Prior to that, I worked for four years with the Canadian Defence Research Board at Shirleysby, in Ottawa, carrying out radiation research work on ionizing radiation, and prior to that I taught for two years in Edinburgh, in Scotland. I taught physics and chemistry, and I have an honors degree in physics from the University of Edinburgh, from where I graduated in 1953.

15 MR. LASKIN: Q. And you are also, as I understand it, a member of the advisory council on occupational health and safety?

20 THE WITNESS: A. I am a member of the advisory council on occupational health and safety to the Ontario Minister of Labour, and I am a member of the advisory committee on radiation protection to Atomic Energy Control Board, and I was a member of committee four of the International Commission on Radiation Protection, for four years from 1976 to about 1980.

25 Q. Thank you. Why don't you, then, proceed with your opening presentation, if you would, Mr. Wilson?

30 A. Ontario Hydro is a publicly-owned, financially-self-supporting utility whose primary goal is to meet the requirements of the Ontario community for electric service, including the manner of the provision, so as to result in the greatest overall benefit to that community and the lowest cost to the customer for that service, over the long term.

This goal statement is supported by specific objectives in key results areas. Two of these specific objectives relate to public and occupational safety.

35 One, to achieve with respect to public health

5 THE WITNESS: (cont'd.) and safety the minimum practical risk from Ontario Hydro's activities and electric system, from the electric systems of all other suppliers of electric service in Ontario, and, except in the case of mines, from the electrical installations and equipment of all customers for electrical service in Ontario.

10 Two, to achieve with respect to the health and safety of its employees, and the employees of other organizations performing functions for Ontario Hydro on its premises, on-the-job risks such that its safety performance for corresponding activities falls in the high range of that of the comparable electrical utilities in Canada and the U.S.A., and in any case, not lower than the average safety performance of all industry in Canada and the U.S.A.

15 Hydro is a large and diverse organization which is in reality a number of separate companies. These companies are engaged in the design, construction and operation of hydraulic, thermal and nuclear generating stations, the production of heavy water and the transmission and distribution of electrical power throughout Ontario.

20 The Corporation employs thirty-one thousand people, twenty-four thousand of which are regular employees. Hydro is a schedule two Workmen's Compensation Board employer. This means that Hydro, by itself, and not as part of a class of similar employees (sic) is responsible for all Workmen's Compensation costs.

25 Hydro is administered by a board of directors which reports through the Minister of Energy to the Ontario Provincial Legislature. The chairman of the board and the president are responsible for directing the day-to-day operation of Hydro.

30 Two executive vice-presidents, one in charge of operations and one in charge of planning and administration,

THE WITNESS: (cont'd.) provide the president with powerful assistance in this task, but it is the president who approves all corporate policies and procedures.

5 The operations group designs, constructs and operates all our facilities. The planning and administration group plans and establishes the program that the corporation will follow.

10 The prime responsibility for carrying out work safely is assigned to the various line organizations in Ontario Hydro. There is little doubt in my mind that this allocation of responsibility is the most effective and efficient way to achieve a high standard in safety.

15 The line organization is not only accountable for its safety performance, but also has the authority to achieve that performance. To do this, the same management techniques used to achieve good performance in other areas, such as productivity or cost control, also apply to safety.

20 Although line groups have direct responsibility for safety within their organizational unit, they do not have sole responsibility. From a corporate position, the responsibility for safety is shared with the health and safety division. Among its functions, the health and safety division monitors corporate safety performance, develops corporate safety policies and rules, and monitors trends and developments in health and safety.

25 The division is in the planning and administration group, and can thus act independently of design, construction and operations personnel.

30 Within an organization, especially a large organization such as Ontario Hydro, a mechanism must exist to ensure that safety policies and safety rules are acceptable to and accepted by the various line groups. This is an extremely important requirement in an organization, and if this mechanism is missing, then it is likely that the staff safety role will be

THE WITNESS: (cont'd.) ineffective.

5 The manner in which this has been achieved in Ontario Hydro has been by the creation of a health and safety advisory committee which has the responsibility to review and endorse, and if necessary, initiate development of company safety policy.

10 This general organization arrangement is shown in figure one. Now, it's also shown in that slide, and that's a very busy slide so I think I'll digress a minute and talk about it.

15 The blue on the slide represents the organizational structure that I talked about later, but further down, and the red represents the activities these various boxes represented in the organizational structure undertake.

20 And if I start with the health and safety, director of health and safety, or the health and safety division, the health and safety division may initiate or develop health and safety policies, and these are referred to the health and safety advisory committee.

25 The health and safety advisory committee is chaired by the vice-president of human resources, to whom I personally report, and directors from the operating side of Ontario Hydro.

30 These policies are reviewed by the health and safety advisory committee, and their comments are noted and the policy is then redrafted, perhaps taking note of their comments, perhaps not, and then passed through to the vice-president of human resources who passes these up to the president for his approval and issue as a corporate policy.

Now, policies are not only initiated by the health and safety division. Policies may be initiated by the president, and by vice-president, and by directors and who then

5 THE WITNESS: (cont'd.) refer these to the health and safety division for development back to the health and safety advisory committee, and up through that line again.

10 Now, these are what we call level one and two policies, or corporate policies. Divisions may write policies, health and safety policies, on their own account. These are called and known as level three policies, and they constrain the divisions, they constrain the divisions.

15 Level three policies have to be in accord with level one and two policies, and one of the other functions of the health and safety division is to ensure that level three policies are in accordance with level one and two policies.

15 As I said, it's a busy slide, but it couldn't be helped. It's the simplest that we could make it.

DR. DUPRE: Would you permit a question of the busy slide, Mr. Wilson.

THE WITNESS: Yes.

DR. DUPRE: I take it that the health and safety division is to be found within the planning and administration?

20 THE WITNESS: Yes. I think that our next slide is going to...or was that the last slide?

UNIDENTIFIED SPEAKER: The previous one.

THE WITNESS: It was the previous slide that illustrated that, and we'll return to that previous slide.

25 We have here on this slide, we have the chairman of the board, and the board of directors, the president reporting to them.

30 We have reporting to the president an executive vice-president, operations, on the lefthand side of the slide, and on the other side of the slide, an executive vice-president, planning and administration.

Reporting to the executive vice-president, planning

5 THE WITNESS: (cont'd.) and administration, we have a number of directors, of which...a number of vice-presidents, of which one is the vice-president, human resources, and reporting to the vice-president, human resources, are a number of directors, of which the director of health and safety is one.

10 So that the health and safety division, as such, is in the human resources, and is on the planning and administration side of Ontario Hydro.

15 DR. DUPRE: I took it from figure...or slide two, the vice-president of human resources will recommend...

20 THE WITNESS: He recommends, yes.

25 DR. DUPRE: ...level one and two policies and programs directly to the president...

30 THE WITNESS: To the president.

35 DR. DUPRE: ...and not to the executive vice-presidents of planning and...

40 THE WITNESS: Oh, for simplicity I missed out the executive vice-president, but it will go up through the executive vice-president.

45 DR. DUPRE: He does report through that executive office?

50 THE WITNESS: Yes. It's essentially a rubber stamping operation at that stage, but it will go up through the appropriate line organization.

55 For simplicity, we missed it.

60 In preliminary discussion with the staff of the Commission, it was indicated that your prime interest was to obtain some understanding of the functioning of the internal responsibility system in Ontario Hydro.

65 Before doing that, I would like to define what internal responsibility means as it applies to health and safety in Ontario Hydro, as it may have different meanings for different people.

THE WITNESS: (cont'd.) In my view, internal responsibility in health and safety is doing that which is required in health and safety, from a social and human standpoint, voluntarily.

That's my definition, but it is a definition which is endorsed by most of the line managers I know in Ontario Hydro. I can quite honestly state that if all government safety-related statutes and regulations were abolished, it would have little or no impact on occupational safety in Ontario Hydro. Our performance, the frequency of fatalities, injury and disease would not deteriorate.

Internal responsibility really starts at the top with clear-cut corporate policy, and Ontario Hydro has had corporate health and safety policies in place for a long time.

The prime corporate policy on safety, which has been provided to the Commission, concerns general responsibility. It states that management has the prime responsibility for safety, and then spells out most specifically the responsibilities of management, employees and contractors.

Although this policy is dated 1980, it existed in similar form long before then. In order to provide for employee participation, a policy has been written to provide for input from employees to the health and safety advisory committee, which was formally called the safety policy committee.

This allows employees to have input to corporate safety policies. This policy was also provided to the Commission.

In Ontario Hydro, review and analysis of our past performance has identified that the fatal accident frequency is unacceptably high. We have therefore established a definite corporate performance standard which, if achieved, will represent a significant improvement in performance.

Further analysis has indicated that our problem is very much associated with our lineman, and is primarily due

THE WITNESS: (cont'd.) to electrical contact
and falling accidents.

The standard, by the way, which before you take it up, John, the standard that we have established is to achieve less than six fatalities per hundred million employee hours.

When that standard was established in 1979/1980... 1979, I think it was...and approved in 1979, our performance at that time was somewhere between eleven and twelve fatalities per hundred million manhours.

Last year our...this is based on a ten year rolling average...and last year our ten year rolling average was somewhat in excess of eight fatalities per hundred million manhours, so that we...I would hesitate to say yet whether there has been a significant improvement because of statistical unreliability as yet, of the figures, but we do seem to be trending in the right direction.

This information, along with an assessment of other corporate needs in health and safety, is the basis for priority identification and recommended resource allocation by the president in an annual programming document.

In the 1983/1985 corporate programming and resource guidelines document, which was provided to the Commission, the corporate priorities which need to be addressed were given as, firstly, the achievement of a major reduction in occupational fatality and permanent disability risks; secondly, reduction in public fatality and permanent disability risks from Ontario Hydro and associated electric systems; thirdly, the effective management of designated substances and other toxic agents; fourth, the maintenance of current control of temporary disability and radiation exposure experience.

In effect, that programming document is calling for improvements in certain areas, and maintenance at least of

THE WITNESS: (cont'd.) our performance in other areas.

Our experience in temporary, the temporary disability rate is really very good. We are about, somewhere close to fifteen times lower than the provincial average.

Our radiological safety experience is also very good, and we see no major increase in resource allocation in that particular area.

The appropriate line managers have a responsibility to follow these recommendations, and for achievement in these areas. In addition to these guidelines, the president displays his acceptance of responsibility for achievement in health and safety by reviewing the circumstances of any fatal accidents that occur in the company, and satisfying himself that identified deficiencies in the management system are corrected.

Ontario Hydro, therefore, has an internal management system that holds managers accountable for health and safety performance, and which is responsive to employee concerns and obtains their input.

In the broad sense of doing that which is required voluntarily, Hydro has a good, but of course not a perfect, internal responsibility system.

Our experience with the internal responsibility system as defined in the narrower sense of legislated participation of employees in workplace safety is limited.

Ontario Hydro, however, has always felt that such an internal responsibility system functioned in our company. Prior to the Occupational Health and Safety Act of 1978, mechanisms existed in Ontario Hydro for employee participation.

At our eleven large thermal and nuclear generating stations, and the Bruce heavy water plant, which were operating in 1978, ten had health and safety committees in which employees

THE WITNESS: (cont'd.) participated.

5 Only at our two smallest nuclear stations, NPD and Douglas Point, were there no formal committees. But at these stations, access to the station manager is relatively easy.

10 In many of them, nonmanagement employees were a clear majority. In these instances, the main change that resulted after the Act was put into effect was that employee unions made the selection of nonmanagement participants, rather than interested employees volunteering.

This could be viewed as a negative effect of the Act, as it had in some instances a tendency to polarize some committees along union/management lines.

15 On the other hand, the Act has strengthened the role of committees, and has, of course, required formation of committees where none existed previously.

20 Prior to the Act, under the policy of employee participation previously described, the corporate health and safety advisory committee met with the central health and safety committee of the Ontario Hydro employees' union.

It was by discussion between these two committees that the locations for joint workplace health and safety committees were agreed upon. These two management and union committees still meet approximately twice a year.

25 Experience with the local health and safety committees has been mixed. Table two, which is illustrated, shows the response of thirty management and union representatives, fifteen of each, on the usefulness of the committees in their location.

30 This sample is small, and may not be representative, but is in agreement with the general feeling of the health and safety division staff on how these committees are working.

5 THE WITNESS: (cont'd.) In addition to the requirement for committees, another main feature of the Act was the strengthening of the right of workers to refuse work they considered hazardous, with a formal procedure for the Ministry of Labour to adjudicate disputes which could not be resolved by discussion between management and workers and their representatives.

10 We have kept records of refusal-to-work situations which were ultimately referred to the Ministry of Labour. This data is given in table three, and is illustrated.

We do not know precisely how many refusals to work have occurred which were resolved locally.

15 A work refusal which did not go to the Ministry of Labour, but which will be of interest to the Commission, occurred at Pickering. Employees requested that insulation that they were being asked to remove be checked to see if it contained asbestos.

20 The first level of management were under the impression that there was no asbestos in Pickering G.S., and refused to have the insulation checked. The employees availed themselves of their right to refuse to work, and samples were subsequently shipped to our health and safety laboratories where they indeed were shown to contain asbestos.

25 This incident alone provides good justification for the strengthened refusal-to-work legislation. Generally where there is goodwill on both sides, the system functions well.

30 At this point, Mr. Chairman, I am leaving the internal responsibility and moving on to talk about our experience with asbestos, and if the Commission feels it opportune at this time to ask questions on the internal responsibility system, perhaps we should do so.

DR. MUSTARD: That last table, over what time

DR. MUSTARD: (cont'd.) period did you accumulate those refusals to work?

5 THE WITNESS: Since the beginning of the Act.

DR. MUSTARD: Until?

THE WITNESS: Until, oh, very recently....early
1982.

DR. UFFEN: Do you wish to ask some questions now, counsel, or should I ask Mr. Wilson to simply conclude this?

10 MR. LASKIN: I think it would be appropriate if Mr. Wilson completed all of his remarks.

DR. DUPRE: Please proceed, Mr. Wilson.

15 THE WITNESS: On our experience with asbestos, it would be pleasing to me to be able to inform this Commission that Ontario Hydro's management of asbestos has been excellent. Unfortunately, this is not so, although I think that we may be among the best of a poor set of performers.

Our performance has been somewhat like the curate's egg, it has been good in parts.

20 At a comparatively early date, our present chief physician, Dr. T.R. Hamilton, and Dr. D.K. Grant, my predecessor, recognized the dangers to workers of exposure to airborne asbestos fibers at low levels previously considered safe.

The hazard is an increased incidence of respiratory system cancers.

25 Their representations to Mr. P.G. Campbell, our present executive vice-president of operations, led to a decision to stop further introduction of asbestos-containing materials into Ontario Hydro, primarily into thermal generating stations where it was extensively used in pipe and tank insulation to prevent heat loss.

30 This was in 1968. A copy of a memo on this subject, with procedures for working with asbestos, is appended.

5 THE WITNESS: (cont'd.) A second major decision to be made at that time was whether we should remove the vast quantities of asbestos that had been installed in our stations up to that time. An estimation of the quantities involved is given in table four, and is illustrated. They are really very large quantities involved.

10 Most of the piping at the steam turbine system never needs to be touched, and the asbestos insulation is effectively contained. The decision was made not to remove it, but if it were necessary to remove insulation, then it would be replaced by an asbestos substitute. This is currently what is being done.

15 In 1968, we implemented control procedures for asbestos work, and since then we have been slowly improving our control and monitoring practices.

20 At the present time, these are quite effective and we are in the process of establishing an integrated corporate program for asbestos. A copy of this program was issued to the Commission.

25 Prior to the establishment of control practices, our own employees and employees of contractors may have been quite heavily exposed to airborne asbestos fibers. We have no information on this, as we have no exposure records.

30 However, we have established a register of those employees who we consider were exposed to asbestos, and we maintain health surveillance of them.

 We know that there are deficiencies in the register, and that it cannot be considered complete. Our health surveillance experience to date is summarized in table five.

 So far, we have identified fifteen employees with evidence of asbestos exposure, but with no disability, and three employees with disability.

5 THE WITNESS: (cont'd.) We have also had four fatalities amongst our employees which are attributable to asbestos exposure, and which have been referred to the Workmen's Compensation Board. Two have been accepted and two are awaiting adjudication.

10 Three of these were mesotheliomas, and one was a heart failure in which asbestosis was a contributing cause.

15 There have been no asbestos-related lung cancers, but conclusive diagnosis is difficult because lung cancer is not caused uniquely by asbestos, and cigarette smoking is a common cause. However, there have been no excess lung cancers in the thermal generating division, where almost all of the asbestos-related disease is found.

20 In the thermal generation division, there appears to be an upper gastro...there appears to be an excess of upper gastrointestinal malignancies, but the numbers are small and the link with asbestos is not firm, and still open to debate.

25 Many of the asbestos-exposed employees received some or all of their exposure outside Ontario Hydro. For example, one of the mesothelioma cases was a design engineer who had worked as a student for several years, installing insulation in stoves.

30 We have little data on exposure conditions prior to 1968, but since that date we have some information on concentrations at work locations during removal of asbestos insulation. An example of this is provided in table six.

35 It must be understood that these values are associated with good control practices, including wetting and establishment of enclosures at the work site. The values are not representative of employee exposures, as air supply protection is worn by those engaged in the work.

To summarize, for a goodly number of years we

5 THE WITNESS: (cont'd.) have prevented the introduction of asbestos into Ontario Hydro, and we have good control procedures and an infant integrated corporate program.

However, we also have had a number of employees exposed in the years prior to 1968, and we do not have exposure records for these workers. We have a register of employees who have been exposed to asbestos, but it is incomplete.

10 Good data is available on work location airborne concentrations, but we have no personal exposure data.

15 Thank you for the opportunity of presenting an outline of Ontario Hydro's internal responsibility system, and our experience with the Occupational Health and Safety Act, 1978.

I hope that this and the information that we have provided on our asbestos experience will be of some assistance to the deliberations of your Commission, and through your recommendations the elimination of unnecessary risks will take place.

Thank you very much.

20 DR. DUPRE: Thank you, indeed.

Counsel?

25 MR. LASKIN: Mr. Chairman, if you are content, I was going to propose a different order, and that is examine last or near the end because this witness has certain time constraints, although Mr. Wilson has indicated he would be happy to come back, and I just want to make sure all of the parties have a chance to ask all of the questions they may wish to ask.

DR. DUPRE: That will be fine, Mr. Laskin.

Do the parties have an order they wish me to follow?

30 MR. McCOMBIE: I guess I'll go first, if that's all right with everyone else.

CROSS-EXAMINATION BY MR. McCOMBIE

5 Q. Okay, Mr. Wilson. Mr. Laskin caught me somewhat offguard here, so I'll just collect my thoughts for a minute.

Just to deal with one matter in your opening remarks, you were talking about the health and safety advisory committee, I believe it was?

10 A. Yes.

Q. This is part of the corporate structure of Ontario Hydro, is it?

A. Yes.

Q. At head office?

A. Yes.

15 Q. Now, I think you mentioned it a little bit later on in your presentation, but as I understand it, that advisory committee as it is presently constituted doesn't have formal representation by any of the workers from Ontario Hydro, is that correct?

20 A. That's correct, yes. It's a management committee.

Q. It's strictly a management committee?

A. Yes.

Q. Would there be any input...you did mention later on that there was input to this committee...

A. Yes.

25 Q. ...from..would these be from the health and safety committees in the different locations, or is there some structure for getting the recommendation, say, in one particular generating station to go through the...I'm just trying to get an idea of the chain of command here.

30 A. We expect that local problems are resolved locally. The health and safety advisory committee meets with

A. (cont'd.) the central union group. It's the..

I think it's the union health and safety advisory, central health and safety advisory committee, and we meet with them approximately twice per year, at which time we accept input from them on policies that...if they think there are perhaps policies needed in a location, or if there is a certain policy that they are not quite happy with, or they don't perhaps understand, the interpretation of it is not clear, they seek clarification.

Or if there's some problems that are not being... that cannot appear to be resolved locally, we will listen to these and accept input on that.

Q. Okay. Now, I would like to deal in particular with the...we did get some information in advance, apart from your opening statement which we don't have yet...but we did get seven different...

A. Yes.

Q. ...guidelines, but I would like to deal in particular with number seven, tab seven, which is entitled, Level Two Procedures for the Prevention of Asbestos-Related Disease...

DR. DUPRE: Excuse me, Mr. McCombie, for a moment. Would you mind stepping outside, if you will, Mr. Lederer...

MR. LEDERER: Oh, I'm sorry, Mr. Chairman. I didn't realize...

DR. DUPRE: ...it's just distracting us a little bit.

MR. LEDERER: I'm sorry. I apologize.

MR. LASKIN: Mr. Wilson, we bound your publication and they each have a tab number.

MISS KAHN: Exhibit fifty-six.

MR. LASKIN: Exhibit fifty-six, Mr. Chairman, for our purposes.

EXHIBIT # 56: The abovementioned document was then produced and marked.

5 MR. LASKIN: I'm sorry, Mr. McCombie.

DR. DUPRE: Excuse me, Mr. McCombie. Please proceed.

10 MR. McCOMBIE: Q. Okay. I guess the first question I have is that you mentioned in your presentation that there is level one and level two procedures, and I gather that this is the significance of level two procedures on here, this being corporate policy as opposed to any other kind of policy, is that correct?

15 THE WITNESS: A. Corporate policy and corporate procedures, as such.

Q. I see. So this would be corporate procedures as opposed to divisional procedures?

20 A. This is a corporate procedure that we expect will...that we expect will be followed by the corporation.

Q. And can you tell me the date...I don't see a date on here anywhere...could you tell me the date that this was...

25 A. Well, currently this procedure is in front of the health and safety advisory committee, so that one rightfully should put a draft at the top of that.

Q. I see.

A. It hasn't yet been fully approved. It has been prepared in the last year, I would say, is the preparation time. So if you want a date on it, 1982 is the date.

30 Q. So it's not fully in effect yet, then?

A. No.

Q. Okay. Prior to this draft then, you indicated that there was earlier policies. I'm just wondering how significant a departure this particular draft policy may be to earlier corporate policies on the assessment and control of

Q. (cont'd.) asbestos health hazards.

5 A. I think this is a formalization of much that is already in place.

Q. So it would be fair to say this is more or less a consolidation of previous...

10 A. It's a consolidation of much that's already occurring in the workplace. Local management such as the thermal generation division have programs in effect, and this is, if you like, a growing together, a standardization and a rationalization of the whole process.

15 Q. Okay. Now, I would like to deal with some of the policies listed in here, and I should make it clear at this point that I am primarily going to be speaking about the workers at the Hearne Generating Station, as that is my particular experience, and also we now have some representatives from CUPE here, who I'm sure will address the other generating stations. I would like to narrow in on the Hearne Generating Station, so some of my questions may be specific to that, some of them may be more general.

20 To start with, on page three-seven, which is the definition of an asbestos worker...

A. Yes.

25 Q. ...and I'm wondering if you would have a rough idea...you have here a definition of what an asbestos worker is for the terms of this guideline, and I'm wondering if you have a rough idea on how many asbestos workers there would be within the Hydro system?

30 A. The answer to that is, I have to refer to my colleagues for how many people we have on the asbestos register. Either Michael Wills or James, Jimmy To will have to answer that question for you.

Q. I have no objection to that.

MR. LASKIN: Why don't you just, then, ask one of your colleagues just to give you...

5 THE WITNESS: Michael or Jimmy, whoever can answer that best.

10 DR. WILLS: This is a change in the definition of asbestos worker, and without going into the reasoning or the logic behind the change of the definition, the previous definition of asbestos worker was somebody who was exposed to asbestos at the level of two fibers per cc or per mil, depending on which units you want, who worked at that level for a hundred hours, and this is our previous definition that we used for defining an asbestos worker, this is a change in definition of an asbestos worker.

15 Going by the previous definition of an asbestos worker, on our register currently we have about a hundred and ninety people.

MR. McCOMBIE: Q. Maybe first of all if we could just get the gentleman's name, for the record?

20 THE WITNESS: A. That's Dr. M.C. Wills, who is a staff physician and who heads up a section within the health services department of the health and safety division, and that section is the health surveillance section, health surveillance unit.

25 Q. If I understood the answer correctly, there's a hundred and ninety using the old criteria for an asbestos worker?

DR. WILLS: Currently.

MR. McCOMBIE: Currently?

DR. WILLS: Yes.

30 MR. McCOMBIE: And the new criteria, there's no number yet?

DR. WILLS: No, because it is not...since it is

5 DR. WILLS: (cont'd.) not official policy, we cannot go out and ask management to prepare for us a registry of asbestos workers using the new criterion. But as soon as it becomes official level two policy, then we will.

10 MR. McCOMBIE: I gather, though, the registry has predicated this particular draft policy, is that correct?

15 THE WITNESS: A. Yes. The registry came into existence, I think in the early-seventies.

20 Q. Now, the registry itself, is this something that...you indicate in the draft policy what would be on the registry...I'm wondering whether that registry would be open first of all to the workers whose names would be on it, and secondly, to the unions representing those workers?

25 A. Well, I think that the workers who are on that registry are fully aware that they are part and parcel of that registry.

Q. They have been aware since 1972?

30 A. I can't assure of that, but I would say that currently that workers who are on the registry I would say, I think they are aware.

Michael, would you like to answer that?

DR. WILLS: The thing is that those people who are on the registry according to the old definition are in a surveillance program, and as such would be informed when the time came around for them to have their periodic chest x-ray and pulmonary function testing, which has been carried out for us by the occupational chest disease service on Grosvenor Street. So they would know that they are on the registry because they would be asked, when the wagon came around to perform the test, to present themselves.

35 MR. McCOMBIE: So it would be...but there wouldn't have been any discussion with the workers as to why this registry

MR. McCOMBIE: Q. (cont'd.) was being set up, or what the possible consequences of their exposure to asbestos has been?

5 What I'm trying to get at is, what kind of educational program has been going on, and for how long, as far as the actual workers in the various stations went?

THE WITNESS: A. Jimmy, would you like to answer that question?

10 This is Mr. J.C. To, who is supervising safety specialist and whose background is industrial hygiene.

MR. LASKIN: Just before he does answer the question, I just want to make sure that the reporter is able to pick it up from back there without...

15 THE REPORTER: The doctor came through. As long as the voices are raised, Mr. Laskin, yes.

MR. TO: Perhaps what I would like to do is answer, first of all, how the registry was prepared, okay, and secondly, about the educational program that we have had in the stations in the early-seventies.

20 Are those the two questions?

THE WITNESS: A. Yes.

MR. TO: Okay.

25 Starting in about 1969, we recognized that there is a need to monitor the workers because of the previous exposure to asbestos, and Dr. Grant, Dr. Hamilton, decided, in consultation with station management, to identify workers who have had significant exposure to asbestos.

These workers were identified to be those who work in the mechanical and electrical maintenance trades. That was the start of that so-called registry.

30 In 1971/1972, we went out, by sending out letters to the station management, to ask for workers who have had exposure to asbestos in addition to those.

5 MR. TO: (cont'd.) We were afraid that we might miss some of the workers who work in the station, yet did not quite belong to the electrical and mechanical trades, so we did send letters to stations asking for further identification, and a list was obtained and supplied to us by station personnel.

10 10 MR. McCOMBIE: Excuse me, if I can just interrupt for a minute. This would have gone directly to the station managers. Was there any contact with the unions at the different stations, at that time?

15 MR. TO: There was no contact to the union. There was a letter sent to station management asking them to identify workers who had exposure, to us, given those criteria that we have indicated.

20 15 So that's the mechanism of obtaining that registry. So that included workers in the thermal stations, nuclear stations, and the Bruce Heavy Water Plant.

25 20 Now, with regard to the educational programs, we have had meetings, through safety meetings, by safety officers, myself included, to go to stations, to talk about, discuss on the potential hazards associated with asbestos, and in handling procedures for asbestos.

That's the educational. We have had discussions, meetings on the hazards associated with asbestos.

30 25 MR. McCOMBIE: And that would have been through the...

MR. TO: Primarily it was through the safety officers.

MR. McCOMBIE: So it would have been through the committees, rather than the overall station?

35 MR. TO: Yes.

MR. McCOMBIE: Was there any material prepared by Hydro for distribution to the workers, as to what was going on?

5 MR. TO: Yes, there was a document prepared, and it was called, Asbestos and Asbestosis, and it was prepared by Dr. Grant, Dr. Hamilton and myself. It was distributed to station personnel in the early-seventies.

MR. McCOMBIE: It was distributed in the early-seventies?

MR. TO: It was in the early-seventies, yes.

10 MR. McCOMBIE: Could we ask if maybe a copy of that document might be submitted to the Commission?

THE WITNESS: A. We'll certainly attempt to do that.

MR. TO: We'll try to get you that, yes. It's entitled, Asbestos and Asbestosis.

15 THE WITNESS: Jimmy, we'll be able to easily put our hands on that, will we?

MR. TO: We'll try to, yes.

MR. McCOMBIE: And this was like an informational pamphlet, or something, that was sent out for all workers in the targetted areas, in the targetted stations?

20 MR. TO: It was sent out to the station personnel, thermal stations.

MR. McCOMBIE: All the personnel?

MR. TO: Station management.

25 MR. McCOMBIE: Station management? Okay. What I'm trying to get at is, workers on the floor. I mean, was there any direct literature provided for their benefit, or was this...this only went to station managers, so presumably the workers on the floor wouldn't have seen this, or were the station managers supposed to distribute them?

30 MR. TO: That I don't know, whether there was a further distribution or whether there was any posting. I believe there was...I don't know whether posting or not, that information

MR. TO: (cont'd.) that we sent out.

5 MR. McCOMBIE: But there was no requirement from head office that it be posted, for example?

MR. TO: No, there was no...again, it's management responsibility to see that it is posted or distributed or...

10 THE WITNESS: I think if you are somehow, you know, looking for an opinion - was the educational program adequate at that time for workers - I would say no, it wasn't.

15 MR. McCOMBIE: Q. I would assume by you saying that that you would now say that it is more adequate?

THE WITNESS: A. I don't think it is as yet to the stage that I think I would personally like to see it. I am somewhat unfamiliar with it, but I do feel that, you know, some greater effort needs to be made in that direction.

20 Q. Okay, I would now like to turn to the following page, page three-eight, the health surveillance of asbestos-exposed workers, and this indicates that workers included in the surveillance program are those defined as asbestos workers and all those currently under the surveillance of the industrial chest disease service.

I would just like to ask how long this particular program, this surveillance program, has been in operation?

A. I think, Michael, you answered that already.

25 DR. WILLS: Well, I think Jim mentioned that in the late-sixties mechanical maintainers and electrical maintainers were defined as high-risk groups, and they were started upon a surveillance program in 1972. This is further refined as the definition of people who were exposed to one hundred hours at fiber levels of two per cc or two per mil, so that, as Jim pointed out, broadened the definition.

30 Now with this new definition we have defined an asbestos worker as someone who works with asbestos, without

DR. WILLS: (cont'd.) the hundred hours on it.

5 MR. McCOMBIE: Q. Okay. I notice in this health surveillance program, under number B, periodic assessment, it's indicated that every three years asbestos workers will have pulmonary function testing and x-rays and so on.

10 I am just curious about that. We had Dr. Vingilis from the...or formerly from the chest disease section of the Ministry of Labour, in here last week and he was indicating that the general approach was that every year was necessary for this kind of program. I am wondering how you got the three year period on this.

THE WITNESS: A. Michael, would you like to answer that?

15 DR. WILLS: That perhaps is one approach that has come up in North America. If you look at other jurisdictions such as the Scandinavian countries, they wouldn't embark upon such frequent surveillance.

20 I think there is often a feeling that a good surveillance program is one which examines workers frequently and the more frequently you examine them, the better the surveillance program is, and in fact surveillance of workers or monitoring of workers does not prevent disease.

The way you prevent asbestos-related diseases is by having appropriate workplace controls, appropriate procedures in the workplace.

25 Monitoring workers really is just doing that - it's monitoring workers to give you some sort of a comment on how appropriate your program is, one, and also to monitor the changes in the worker. They do not occur as rapidly as yearly changes, particularly at today's levels, and I might further comment that if we are looking at thinking now, to quote Dr. Muir, who feels that with today's levels asbestosis is not

5 DR. WILLS: (cont'd.) really a concern. What we are concerned about is the malignancies. You cannot screen for the malignancies by pulmonary function testing and periodic x-rays. Also, working for the employer who is concerned about mass x-rays and mass exposures of the general public to ionizing radiation, you should realize that there are risks associated with mass exposures of large groups of people to ionizing radiation.

10 I assume that was one of the reasons why at the Hearne Generating Station most recently, when the industrial chest disease service came around so that workers could have their x-rays done, that a fair number of them refused to participate...because of their concerns about exposure to ionizing radiation.

15 MR. McCOMBIE: Q. Okay, carrying on with the following page, page three-nine, A Review and Reporting of Results. As you indicated at the beginning, this is just a draft procedure right now, and I'm wondering whether number D (2) there: "All workers will be advised of their individual test results", whether that is current policy or whether that is awaiting the approval of this...

20 DR. WILLS: Well, certainly that is our current approach and our current attempt. The emphasis, of course, is to those people who had abnormalities, and we have been very aggressive in reporting to workers any abnormalities that they have, discussing this with them and indicating to the worker, and also to management, when a claim should be submitted on the worker's behalf.

25 So the answer is yes.

30 MR. McCOMBIE: Maybe Mr. Chairman, at this point, maybe if there is going to be more than one person responding, maybe we could have them up front. I find it somewhat difficult

MR. McCOMBIE: (cont'd.) to have somebody
behind me here. I don't know...

5 MR. LASKIN: I think that's a very sensible
suggestion, Mr. McCombie.

DR. DUPRE: Perhaps we might do that. You might
even want to swear them in while you are at it, counsel.

10 MR. WILSON: Jimmy and Michael, would you both
come forward?

15 JAMES TO, SWORN

DR. MICHAEL WILLS, SWORN

CROSS-EXAMINATION OF THE ABOVE PARTIES BY MR. McCOMBIE

20 MR. McCOMBIE: Thank you, Mr. Chairman. I think
that is more comfortable for all of us now, than having a voice
coming from behind.

25 MR. McCOMBIE: Q. Okay, so you are saying that
there is now a strenuous program of informing workers of what
is happening in their medical situation. How long has that
been the policy or...?

DR. WILLS: Well, I think that approach has
been instituted for, I would say the last two to three years.
I started with Ontario Hydro four years ago, and evolved into
this responsibility, and have attempted wherever possible to
contact people with abnormalities and have their problems
discussed with a physician in health services, and also
communicated with the family physician, and if indicated, advised
management and the worker that a form seven should be submitted
on the worker's behalf.

30 With some of the more trivial abnormalities,
you must realize that with pulmonary function testing abnormalities
that crop up are not always those related to a person's

5 DR. WILLS: (cont'd.) occupational exposure. They may be because a person has a long history of, say obstructive lung disease, a person may be a heavy smoker, and in situations like this where their history is well documented, the abnormality is noted and the copy goes to the nurse for discussion with the worker, rather than discussion by a physician with the worker.

10 MR. McCOMBIE: I see. When Dr. Vingilis was here we had a fairly lengthy discussion about the use of codes on the x-rays of the occupational chest disease section, and I'm just wondering whether that kind of information, when minor changes appear on x-rays...and he was talking at that time about a three, I believe the number was, which was sort of what he called the grey area between obvious changes and a clear x-ray... I'm wondering if in those cases the worker would be notified
15 that there was a change, although it wasn't necessarily fibrosis or it wasn't necessarily anything at that point to be worried about?

DR. WILLS: Well, if you are talking about the ILO/WHO classification of pneumoconioses...

20 MR. McCOMBIE: Now, we are talking about a somewhat...I don't think we ever did exactly nail down what it was, other than from 1935 in South Africa.

25 DR. WILLS: Okay. Or whether you are getting into the internal classification system that Dr. Vingilis and his group used for reporting, or amongst themselves for defining abnormalities, we don't use that. What we get is a report from the chest disease service which says, in plain, ordinary English rather than ones, twos or threes, what their opinion is. And we take this and discuss it with the worker. If it's considered normal, then it's normal. If the report indicates changes that are associated with asbestos exposure, such as pleural thickening or pleural plaque, then these are discussed with the worker.
30

5 DR. WILLS: (cont'd.) And in, I would say, almost all of the cases with those kinds of pleural reactions that are associated with asbestos exposures, these have been reported to the Board for their consideration, whether or not there are pulmonary function abnormalities associated with them, which in the majority of the cases they have not.

10

MR. McCOMBIE: And you are saying that to the best of your knowledge this has been the case for the last three or four years?

15

DR. WILLS: Well, I would say it has been for the last two to three years, when I initially started with Ontario Hydro. It took me a little while to get oriented to the large organization that it is, and I'm still getting oriented to the large organization that it is...if anyone can claim that he knows Ontario Hydro.

20

MR. McCOMBIE: But you don't know whether that was the case prior to your joining, this notification?

25

DR. WILLS: I think that it is fair to say the answer was, that was not the case, that it was primarily because of my interest and involvement in this particular area that the results in fact were reviewed and pursued more aggressively than they had been in the past.

30

MR. McCOMBIE: Okay, thank you.

Further on the same page, and I'm not exactly sure who I'm addressing this to, but I'm sure the appropriate person will answer, management and the worker will be advised if,

in health service's opinion, the worker is not fit to continue asbestos work".

Now, first of all, is there a firm policy that... this is on page three-nine...is there a firm policy with Hydro where first of all this is the case, that there is...that if the worker is no longer fit to continue asbestos work, is there a

5 MR. McCOMBIE: (cont'd.) firm policy that the worker will be transferred with no loss of pay to another section?

MR. WILSON: I don't think there is any written policy as such. I think there are some operating policies in health services, and I'll ask Michael to talk to these, that would clearly indicate that the answer is yes.

10 MR. McCOMBIE: Maybe before you answer that, I could...

15 MR. WILSON: Before I answer for Michael, I'll take that back and let Michael answer.

MR. McCOMBIE: Okay. Let me just ask a supplementary, then, on that. I'm just wondering what the criterion would be as to whether or not a worker would be fit to continue working in asbestos. Presumably there would...

20 MR. WILSON: I'll have to turn that over to Michael.

25 DR. WILLS: I think that when you consider whether or not a worker is fit to continue with asbestos work you are running into an issue of who is fit to be exposed to asbestos. Well, I think the answer to that is nobody. And in fact, what you should do is try and minimize as much as you can a person's exposure to asbestos. So when you are interpreting this, whether or not the worker is...this is, by the way, a wording that the ministry seems to use...the Ministry of Labour seems to use a great deal in their regulations, that the physician's responsibility is to determine whether or not the worker is fit, fit with modification or unfit to continue to be exposed to blank, and I've always had some difficulty with this particular concept of what is meant by fit.

30 By whether he is fit to continue asbestos work, I think we would have to rely on two things - a professional opinion or professional judgement as to the nature of his

DR. WILLS: (cont'd.) asbestos-related disease, and two, the nature of the work that he can do.

5 There is not any hard and fast written policy.

MR. McCOMBIE: And as far as maintenance of the pay scale, there is no hard and fast written policy on that either, if someone is transferred for those reasons?

10 DR. WILLS: No, but if a person is not fit to continue with asbestos work, that would mean that he presumably

had a compensable problem, and in cases like that the case would be referred to the Workman's Compensation Board for adjudication.

15 MR. McCOMBIE: Okay. One further question on that particular document, or one or two, on the following page it indicates yearly surveillance summaries will be forwarded to both station management and health and safety committees.

Again I would ask, as I did earlier, whether this has been the case in the past or this is part of the new draft policy.

20 DR. WILLS: This has not been the case in the past with asbestos-related problems. No, it has not.

MR. McCOMBIE: So this will be, assuming that this draft is approved, it will then become a new policy?

25 DR. WILLS: Yes, and surveillance summaries, as I pointed out, or perhaps as you might realize, would be stripped of any individual identification and simply would be summaries of group results.

MR. McCOMBIE: Am I...and maybe we can get back to Mr. Simpson (sic) on this...am I correct in assuming that as this is a fairly new policy that, we were talking this morning about evolutionary processes, is it safe to assume that this whole question of the asbestos problem at Hydro has been an evolutionary process and this document is a result of that, and you are still in the process of

MR. McCOMBIE: (cont'd.) developing policy?

5 MR. WILSON: The answer to that is yes. I think from 1968, our programs have been evolving and have been improving, and I think this is a major step in the process, and if one says ultimately where will one be going, one can always look at the radiological safety program which is a Cadillac, I think, and say that that might be the ultimate aim, but one always has to look fairly closely at that program in terms of its...what should 10 I say, it's coverage. It really is a Cadillac and maybe we should be talking about a good Chevrolet.

15 MR. McCOMBIE: I guess the reason I'm asking is, you indicated that it first became, or Hydro first became aware, I guess, of the significance of the problem in 1968, and here we are fourteen years later when this whole policy is coming into effect. I'm wondering what...how the evolutionary process transpired between 1968 and 1982.

20 MR. WILSON: Well, you know, first of all I told you our performance was like the curate's egg - it was good and it was bad, and no doubt, to my mind, there are some poor parts in terms of our performance. But there are also some good points and I think we did the important things, or started on the important things that should be done - which is, first, the elimination and the control.

25 Inadequacies, I would say, primarily relate to exposure records and to health surveillance, and I think it's in these areas that we will be seeing the major improvements in our program.

30 MR. McCOMBIE: Is there any indication from where I guess you sit in head office, of any change on the part of the Hydro corporate body as far as the relationships with the unions involved? I notice that in your presentation you indicated that from your point of view the internal responsibility

5 MR. McCOMBIE: (cont'd.) system indicated that it was primarily a management function to deal with occupational health and safety, and there's several other indications of that in the policy.

I'm just wondering if there is any movement towards including the workers at the various places in the whole process.

10 MR. WILSON: Well, workers are, of course, included in the process at the local committee level, and we do have what I described, the input that occurs via the central union health and safety committee. I am...certainly I am not aware of any intentions beyond that, that currently exist.

15 MR. McCOMBIE: Well, one of the examples maybe I can raise is that I understand that a program was proposed by Dr. Michael Hutcheon and Dr. Lynne Holness at the Hearne Generating Station? I don't know if you can comment on that, in which...just give me a minute to read this. I'm quoting from a letter to Dr. Wills from Dr. Hutcheon, and it is dated October 2, 1981, and it is indicating that Dr. Lynne Holness, a resident in the respiratory medicine at the U of T, would be interested in doing a project:

20
25 "I think that in view of the clinical and physiological changes associated with pleural disease secondary to asbestos exposure, it would be an appropriate project."

30 From my discussions with the union involved, there was no approach to them as to have their involvement with this project because they have had something like five cases of suspected asbestos-related disease, and I'm wondering why there was not a more formal approach to the union involved there, to get their co-operation in a project such as this?

5 DR. WILLS: Two points - one, that research program is currently underway, and Dr. Holness and Dr. Hutcheon have been reviewing people with identified pleural abnormalities. The identification process was one carried out by Dr. Holness, rather than by us. And secondly, I recall discussing this with Mr. Bolan back in 1981, prior to the initiation of this research program. I had the blessing of Mr. Bolan and also of thermal management prior to contacting people with abnormalities and having this research program carried out, and it is still being carried out.

10 MR. McCOMBIE: Okay. Again, if I might reiterate, I am trying to focus on the Hearne Generating Station and therefore I would not be in Mr. Bolan's bailiwick.

15 DR. WILLS: Okay. There was also a copy of the letter that was sent to the president of the COE at the same time.

20 MR. McCOMBIE: So a copy of the letter was sent. Was there any followup, was there any attempt to involve the union in this project and solicit their support and co-operation and input?

25 DR. WILLS: Well, the project is a research project, which involves the examination of people by Dr. Holness, who have identified pleural abnormalities. The support that is needed is the co-operation of those identified by Dr. Holness as having pleural-associated disease. Indeed, those people have come forward.

30 MR. McCOMBIE: If I could just turn for a minute to the actual structure of command, I guess, you indicated, Mr. Simpson (sic) in your opening remarks that...Wilson, I'm sorry...that's tomorrow. It's Tuesday, it must be...

You indicated in your opening remarks that the corporate head office set the general policy and then each

5 MR. McCOMBIE: (cont'd.) generating station, for these purposes, would be responsible for implementing that policy, plus presumably, secondary policies that would be peculiar to that workplace. Is that correct?

10 MR. WILSON: Yes. I would like to emphasize that at this moment in Ontario Hydro we are in a state of change from our rules-oriented discipline to a policy-oriented approach.

15 What I really have described is the policy-oriented approach that we are currently trying to implement.

20 Now, this implementation will not be done in a day. It is going to take several years, because we do have in place a structure, at the moment, of fairly rigid rules, but we hope to move away from that rigid rule approach to, as I said, the approach I described, a policy-oriented approach. We're, I would say, right in the middle of that task.

25 But the question you asked is, would local management make local policies, and the answer is yes, they would, but they will have to conform to corporate policies certainly in intent.

30 MR. McCOMBIE: I guess the reason I asked that, I'm just curious as to the chain of command, as I said, and I'm wondering if in a given work site whether the workers would... let's say the health and safety committee or the worker representatives from the health and safety committee, would obviously be dealing with local management, and is there any chain of command if there is dissatisfaction there, to go to corporate policy, for example, or to go to the corporate head office?

35 MR. WILSON: Well, I think that the chain of command is quite clear. It's right up through the line organization, and you know, at some time the union representatives, whether they be COE or whether they be OHEU, can come to the health and

5 MR. WILSON: (cont'd.) safety advisory committee with concerns that are unresolved at the local level.

10 The chain of command for safety goes right up to the president. In Ontario Hydro, as far as I'm concerned, the chief safety officer is the president.

15 MR. McCOMBIE: In one of your slide presentations you indicated the degree of asbestos present in the various generating stations, and I gather that that is a process that is being reduced as much as possible. I'm wondering, is there a policy for removal or encapsulation, or is it...I mean, how is that being dealt with, the volume?

20 15 MR. WILSON: I think I explained at an early stage a decision was made that we would remove when necessary for maintenance, and when it was removed it would be replaced with an asbestos substitute.

25 20 However, because of the vast quantities and the fact that the majority of it did not need to be disturbed, we did not remove all at one time. We didn't go into a process of total removal. We went into a process of encapsulation and confinement, and removal and substitution when it was necessary to disturb it.

MR. McCOMBIE: Would that be the case across the board, or would there be some cases where you would remove it even prior to its being necessary for...

30 25 MR. WILSON: Well, of course, that's also been associated with a process of elimination, where new stations, as far as we can manage it, are built without asbestos.

Now, there may be some stations or there may be some places locally where a decision has been made that we'll take it all out, but that's a local management decision.

30 MR. McCOMBIE: Are you aware of...we've talked about the timeframe that we've been looking at from Hydro's point of view, and you have indicated from about 1968...I'm just

5 MR. McCOMBIE: (cont'd.) wondering when the first time...again referring specifically to Hearne...the first time
that the workers at that generating station were made aware of
the severity of the problem that is inherent in asbestos, and
also in that particular work site?

10 MR. WILSON: I'm not aware of it.

15 Jimmy, could you answer that?

MR. TO: I'm not aware of that either.

20 DR. WILLS: Apart from discussions with
individual workers who have had asbestos-related problems...and
I think I previously mentioned to you that any with abnormalities
have had discussions on a one-to-one basis with health services
representatives...I have been to the Hearne Generating Station on
two occasions to talk to people there about asbestos and
asbestos-related problems and the nature of the asbestos-related
disease. The most recent was to supervisory personnel.

25 However, about two years ago I was at the Hearne Generating Station and attempted to carry on an educational discussion with the workers at the station, about the nature of asbestos-related disease and the experience in Ontario Hydro, and specifically at the Hearne Generating Station.

MR. McCOMBIE: This was two years ago, you say?

DR. WILLS: Two years ago.

25 MR. McCOMBIE: I'm wondering why the time lag
between 1968 and 1980. Is there any explanation for that?

DR. WILLS: I can't comment on that.

MR. WILSON: Perhaps Jimmy can comment on that.

I can't comment on that because you are talking
about a period before my involvement.

30 MR. TO: I think if you go back to the record
about safety meetings at the Hearne Generation Station, I'm sure
you would find some topics held by Mr. Harry Cooper, who is a

5 MR. TO: (cont'd.) safety officer responsible for thermal generating station. I can remember...I can only draw on my memory now...in early-seventies there have been discussions pertaining to the hazards associated with asbestos, in the early-seventies, initiated by Mr. Harry Cooper, the safety officer, during the monthly Hearne safety meetings.

10 I believe I was involved, not in the formal process of discussing about asbestos hazards, but in a sort of answers-and-questions type meetings at the end of some other subjects, discussing other subjects.

I believe there have been some and I think there have been some discussions between 1970 and 1975, held by Mr. Cooper.

15 MR. McCOMBIE: So to the best of your knowledge it wasn't in 1980? There was discussions prior to 1980?

MR. TO: To the best of my knowledge there have been discussions held at the station during the safety meetings.

MR. McCOMBIE: Okay. Okay, I have no further questions at this time.

20 DR. WILLS: Could I add that about two years ago when I was at the Hearne Generating Station, I went there to address the workers, to discuss asbestos and asbestos-related disease, and was prepared to spend, I believe it was an afternoon, with workers who were then assembled in a classroom.

25 Unfortunately, because of the emotional nature of the subject and because of the attitude of confrontation that was present in some of the workers at that meeting, I was not allowed to finish.

MR. McCOMBIE: If I could just followup on that, Mr. Chairman?

30 So there was this meeting, but you found it somewhat emotional due to the...and adversarial?

5 DR. WILLS: Well, most of the workers were, I think, receptive and interested in what I had to say. There were a couple of individuals who, unfortunately, found it necessary to not only pursue the whole issue in an adversarial nature, but also felt it necessary to pursue the issue on a personal level, too.

MR. MCCOMBIE: Okay.

DR. DUPRE: Thank you, Mr. McCombie.

Next, Mr. Bolan?

10 MR. BOLAN: Right. I'm ready.

DR. DUPRE: If you please, Mr. Bolan.

CROSS-EXAMINATION BY MR. BOLAN

15 MR. BOLAN: I think I would like to start and go back, Bob, to the first part of your little talk where you gave us some figures there about how Ontario Hydro was doing not badly as to its fatality frequency, etc., etc., for the thirty-four thousand people working for Ontario Hydro.

20 This seems on the surface to be very good, but of course if that is broken and, like you say, Hydro is made up of many companies or many individual trades, that can be somewhat disastrous, and the example, of course, is the lineman. Out of thirty-four thousand people, there are only eleven hundred Ontario Hydro lineman, and they normally account for approximately half or better of the fatalities. Is this true?

25 MR. WILSON: That's absolutely correct, Jim, and there is...you are aware that that's no secret and from a health and safety division point of view and a corporate point of view the highest priority in Ontario, the first priority in Ontario Hydro is the reduction of lineman fatalities. The second priority is the reduction of lineman fatalities, and the third priority is the reduction of lineman fatalities.

30 I have said that on innumerable occasions and I'll keep saying it until such time as the lineman trade is at an

5 MR. WILSON: (cont'd.) acceptably safe level.

MR. BOLAN: Okay. You and I both agree on that,
but what I was trying to bring out is that all is not perfect,
there are some bad points in the ship.

10 Going along those bad points, if we are looking
in the same level when we get to the thermal, and possibly...we'll
leave the nuclear people out...but the thermal group, the accident
rate and disease rate in the thermal group is considerably higher
than the rest of Ontario Hydro, excluding the lineman?

15 MR. WILSON: That used to be true, Jim, but the
accident rate in the thermal generation division is now about the
same as the corporate average. It used to be poorer than the
corporate average. It's now slightly better, I think, than the
corporate average.

20 MR. BOLAN: In the industrial disease level?

25 MR. WILSON: Not in industrial diseases. It's
clear that industrial diseases...and we are primarily talking
about the asbestos-related diseases...but as far as...and noise...
but as far as accidents are concerned, the thermal generation
division performance is actually, I think, slightly better than
the corporate average, which in itself is about, I think it's
about five times better than the industrial average.

30 MR. BOLAN: But in industrial disease, it's still
leading the way?

25 MR. WILSON: In industrial disease, it's clearly,
I think, the division in which there has been the greatest
incidence of noise-related diseases and asbestos-related diseases.

MR. BOLAN: Right. In your priorities under the
lineman, as we come down, one of your priorities was toxic
substances.

30 MR. WILSON: Yes.

MR. BOLAN: Is there any policy right now within

MR. BOLAN: (cont'd.) Ontario Hydro about the use of toxic substances we have, or new substances being brought in?

5 MR. WILSON: There is currently a toxic, a policy on toxic substances. I think it has been endorsed.

It may well have been supplied as part of this package. If not, it...

MR. BOLAN: But it's not in use in the field right now?

10 MR. WILSON: It may not complete...let me put it like this, the policy itself may not have been completely filtered down at the field. In Ontario Hydro, in the field in general, we are pursuing control of toxic agents.

15 MR. BOLAN: Well, I think you better hurry because just in the last week we have had a number of cases where... for example Cornwall, we've brought in degreasers with absolutely no information to them whatsoever...when a data sheet was asked for, that data sheet could not be produced - neither by Ontario Hydro nor by the company selling the degreaser.

20 MR. WILSON: Okay. Jim, can I say to you if that degreaser is, you know, before that degreaser goes into operation, and I don't know whether it's in operation...

MR. BOLAN: We refused to use it.

MR. WILSON: ...may I recommend to you your rights under the Occupational Health and Safety Act, 1978.

25 MR. BOLAN: We intend to use them, Bob.

Bob, with that in mind and the toxic substance, I would like to go to page eight of your things here, where it talks about internal management system that holds managers accountable. When we look at that, we look at the statement of the experience internal system (sic), and I think especially of asbestos.

30 We had...or first of all, let's go to committees.

5 MR. BOLAN: (cont'd.) We had health and safety committees in a lot of places in Ontario Hydro long before the Occupational Health and Safety Act, but there was still a need there, and before the Occupational Health and Safety Act we actually sat down and renegotiated those committees and their duties.

10 I would say to you one of the reasons we did so is that the committees before 1976 were management-orientated committees. In other words, the workers that were put on those committees were put there by management, they were not volunteers, and possibly this is the reason for once the committees were established with the union actually placing the people there, there was a change and there was a little more of a confrontation change.

15 We carry on and back in 1980, the first removal of asbestos took place at Lakeview. Could you tell us how the procedure for the removal of that asbestos was established?

20 MR. WILSON: I can't, Jim, but perhaps Jimmy To can answer that.

MR. TO: Could you repeat the question again?

25 MR. BOLAN: In 1980, the removal of the turbine asbestos was taking place at Lakeview Generating Station. There was a procedure hammered out. Could you tell us how that procedure was hammered out?

MR. TO: I cannot tell you how the procedure was drawn up at that time, because it was the station management's responsibility to write that work procedure with regard to the removal of asbestos.

30 MR. BOLAN: Okay. Are you aware of two work refusals that took place during that time, due to asbestos?

MR. TO: No. No, I wasn't aware of that.

MR. BOLAN: Well, in your internal responsibility

5 MR. BOLAN: (cont'd.) thing, you start talking about you knew of the dangers of asbestos as early as the late-sixties, early-seventies.

We come to 1980 at Lakeview, and we are going to remove tons and tons of asbestos, and no appropriate procedure was laid down or followed, to the point that the employees there had to mass refuse to work in the area because of the asbestos exposure.

10 MR. WILSON: Jim, I obviously can't comment on that, I don't know of the situation, it did not get referred to the Ministry of Labour, or we would have, I think, had it recorded. I may stand corrected on that.

15 I will, however, for your benefit, look into that situation, I'll find out what procedure had been hammered out, because I'm fairly certain that management at Lakeview would not go into an asbestos-removal process without a procedure, in 1980.

20 MR. BOLAN: Bob, the procedure may have been in management's hands, and this is what I'm trying to get at. A procedure or a known risk in management's hands is of absolutely no use. The only time a procedure is of use, or a hazard, a known hazard, is of use, is when it is in the hands of the worker who is going to perform the job.

25 What happened in Ontario Hydro between 1968 and 1980 was that management had the facts - the only problem was they did not communicate them to the workers.

30 MR. WILSON: Jim, I think that may well be a valid criticism, and the informing workers of asbestos risks, I think, has been inadequate. I will certainly succumb to that.

 However, there may well have been effective procedures even although they may not have been known to the workers and they may not, indeed, have been fully informed of the risks associated with asbestos.

5 MR. BOLAN: Well, in this case I'm not saying known to the workers. It wasn't known to the station first line management. The hazard of asbestos was not fully explained to the station first line management.

10 MR. WILSON: Jim, I'm sorry, I can't comment on that. I would have to, obviously, bring with me to the Commission the appropriate station managers at that time who would either agree with you or partially agree with you or refute what you said.

I can't make any statement in that regard.

15 MR. BOLAN: Just to put the thing in perspective, maybe I can just jar your memory that a big meeting took place on that Sunday, and on Tuesday the same thing took place where procedures weren't followed and a second work refusal took place where over sixty employees walked off the job and would not work in the asbestos environment.

20 MR. WILSON: Jim, I'm afraid you haven't quite jogged my memory, but I'm sure that if you say these refusals took place, they took place.

However, it still doesn't take away from the statement I made in regard to the existence of procedures.

25 MR. BOLAN: Well, I was trying to point out here that sometimes the internal policy does not work when it is management alone. The only time an internal policy can work is when everyone involved is part of that internal policy and agrees with it.

MR. WILSON: I would certainly say that total involvement is a very desirable situation. Total agreement may be paradise. However, I do agree with you on total involvement being something that we should be aiming for.

30 DR. UFFEN: Could I ask a question here?

MR. BOLAN: Yes, sir.

DR. UFFEN: Were the people who exercised their right to refuse to work penalized in any way..

5 MR. BOLAN: No way, sir.

DR. UFFEN: ...or any attempt to penalize them?

MR. BOLAN: No. No. No way.

What actually happened in the end is that a policy was hammered out and they virtually followed the NIOSH asbestos removal policy, and to this day that policy is now being followed.

10 MR. TO: I think it's beginning to be a little clear now with regard to that 1980 incident you mentioned about.

First of all...

DR. MUSTARD: Can I interrupt for a moment?

MR. TO: Oh, sorry.

15 DR. MUSTARD: It would seem to me the story that you have just told us is a powerful reinforcement that indeed the committee system did work, that you objected and then things were put into place and now you've got a good policy in place.

Am I misunderstanding the discussion?

20 MR. BOLAN: The thing that you are misunderstanding is, when we are talking about internal responsibility - management were quite aware that a policy like this was required and should have been followed. There was no move on management's part, one, to ensure that some type of policy was followed, or that the workers were informed that the hazard they were going to be presented with would be there.

25 It was only because of the education of the workers and their refusal, and it took two refusals, not one, but two refusals to finally sit down, hammer out a policy and have that policy enforced.

30 DR. MUSTARD: But can I ask a question? Who did the education of the workers, your union?

MR. BOLAN: Our union did, yes.

DR. MUSTARD: So it's a strong argument, I guess, for having a good union...

5

MR. BOLAN: Oh, yes it is.

DR. MUSTARD: ...that understands it, to make sure management understands what they have to do.

MR. BOLAN: That's right.

DR. MUSTARD: You've had no problems within the Act in getting management educated.

10

MR. BOLAN: But you would think if management were aware of the problem from 1968, by 1980 they would have the policies and procedures well underway.

DR. DUPRE: But the Act, is, of course also providing you with the right to refuse...

15

MR. BOLAN: Right.

DR.

DUPRE: ...gives you an educational tool vis a vis management, shall we say?

20

MR. BOLAN: No problem.

MR.

TO: If I may say, I believe that refusal has nothing to do with Ontario Hydro's workers associated with the actual removal of asbestos. Am I...the workers were concerned about the residual asbestos level in the plant. It has nothing to do with the actual removal work.

25

MR. BOLAN: It had to do with the removal work, Jim, because other people were doing it, and what they were leaving was airborne asbestos for our guys to follow in and work in, and we had to correct their methods before we could work in the area.

30

MR. TO: I disagree with you there, on that aspect, because the job was carried out by a contractor, I believe it's called Retman and Rigg, and the job was carried out in the evening, which is consistent with our procedure which is to reduce, to carry out the work at a time when the minimum number of people would encounter asbestos levels.

5 MR. TO: (cont'd.) Number two, the work was carried out consistent with the practice that we have identified there about wetting, the insulation was wetted down before they were removed by the contractor, the area was roped off before... the area was roped off during the removal, insulations were removed carefully and according to our instructions, and put them in bags before they are disposed of.

10 Those were the procedures that we have had for the stations and in the stations, for some time.

15 MR. BOLAN: Jim, the procedure you just partially laid out was the one that was done afterwards. What actually happened, in fact, to cause the work refusal, that it was done by a contractor, it was under the supervision of one of your own MP 4's. who should have been on the job and wasn't, and the asbestos was taken off and dropped three floors to the bottom, which created three floors of asbestos, airborne asbestos, with the heating and ventilating system on, which was picked up and then distributed throughout the whole station.

20 In other words, if you had a policy, it wasn't followed.

25 MR. TO: If you look at the results...there are two things I want to comment. Number one, there is in existence a removal procedure which has been in existence since 1968, and the thermal generation divisions also have a system maintenance directive on that, pertaining to the removal of asbestos, since 1971 or 1972. That's the thermal generation divisions' directive.

30 I would like to draw your attention to the result, which is the most important part. As you recall, testing for asbestos was carried out the day after the removal, and the concentrations for airborne asbestos in the area were well below the threshold limit values.

MR. BOLAN: The day after.

MR. TO: The day after. Which indicates that the...

5 MR. BOLAN: That the heating and ventilating system did a good job.

MR. TO: Which indicate the procedures and the way that the asbestos was being suppressed were done carefully and have been...the contractors were doing the job in a way that the asbestos was minimized.

10 MR. BOLAN: Jim, being a thermal worker through the period of 1968 to 1977, and watching asbestos being removed hundreds of times, there was never a policy used until 1980.

15 Anyway, I have some other questions and my other question is, asbestos workers, I noticed that you designated a certain group and this certain group has a criteria of exposure.

Who went about and decided that this group would have that criteria, and not another?

20 MR. WILSON: That was decided by the authors of the draft paper. The authors are sitting beside me.

DR. WILLS: Jim, are you referring to the draft level two procedures?

25 MR. BOLAN: Yes.

DR. WILLS: And your question is, it would not apply to selected groups, it would apply - a definition of an asbestos worker - would be applicable to everyone within the corporation. I mean the definition of an asbestos worker in this draft document is anyone who works with asbestos for more than one hundred hours in a calendar year is considered to be an asbestos worker. It doesn't matter what division he is in or what kind of area he is working in, he is an asbestos worker.

30 MR. BOLAN: Okay. It's the one hundred hours in a calendar year that gets to me, knowing the setup of the thermal generating stations and the methods that were used for asbestos removal before. Once the asbestos was removed and allowed

5 MR. BOLAN: (cont'd.) to drop three floors down to the bottom and get all crunched up into some fine particles and picked up in the heating and ventilating system, then does not everyone in that plant become exposed to asbestos over the hundred hour period, such as operators, handymen, etc.?

10 DR. WILLS: Well, you should realize that the whole idea of identifying an asbestos worker is so that you can carry on some sort of an asbestos surveillance program. The way you control disease is not through a surveillance program. Surveillance programs do not prevent a disease. What prevents disease is

15 the appropriate workplace work process procedures.

The whole idea of having the identification of an asbestos worker is so that over the longer term you can follow these asbestos workers and get some sort of an indirect, if you want, comment on the effectiveness of the surveillance program.

15 The risks that we are looking at now primarily are due to asbestos-related malignancies. There is absolutely no way of screening for these malignancies at the present, so carrying on surveillance programs of everybody in the station is not going to do one bit of good in terms of the prevention of disease.

20 What we are doing is carrying on surveillance of presumably high-risk people. If you think of Sutton's Law, you go where the money is.

25 MR. BOLAN: Okay. I agree with you that the surveillance program does not stop the disease, but we also have a problem where for the last twenty years we have been exposing people, and what I think is that you have shortened your list down too far, that there are more people exposed, and exposed to the point where they may be having lung problems in the future, than you would indicate.

MR. BOLAN: (cont'd.) I would like to also ask one other question, and maybe Jimmy To could answer this.

5 You said that a letter was sent to management in the early 1970's. In the early 1970's, I happened to be a member of one of those so-called health and safety committees. I never saw that letter. Why would you only send it to management, and why would it not be distributed nor discussed at those health and safety committees?

10 MR. WILSON: I'll answer that for Jimmy. I can't answer that question.

15 But, you know, there is a changing social environment and there is a changing environment in occupational health and safety, and at that time, I can only say at that time the environment was such that I think management felt it was its prerogative to have that kind of information and did not necessarily feel the need to share it.

I think the single exception in Ontario Hydro to that kind of attitude has been the position taken in terms of radiological safety training from 1960.

20 MR. BOLAN: Okay. One final question then. I might just as well point this right at Dr. Wills.

Dr. Wills, you said that an asbestos worker of a certain exposure may be removed or it's to his benefit to be removed from an asbestos atmosphere for the rest of his working life.

25 You also went on then to say that the asbestos exposure to any worker should be as low as possible.

Can I ask you what your definition of 'as low as possible' is?

30 DR. WILLS: Well, when you think of the whole approach to minimizing asbestos exposure in the workplace, you take the approach that you will minimize exposures to a situation that

DR. WILLS: (cont'd.) is practical, taking into account such things as the availability of substitutes, taking into account the appropriate workplace procedures that you've got to carry on the minimization process, taking into account the economics of the situation, and taking into account the risk of the workers.

So, I mean, you can't give a simple answer to that question. You have to consider a number of factors, balance them together and come up with what amounts to a practical solution to minimizing levels.

Do you want a number?

MR. BOLAN: Well, a number may be not practical, but if possible would be zero.

DR. WILLS: You are trying to drag me into the whole issue of the only safe exposure being zero exposure, and that is not a practical solution, it's not even a theoretically-possible solution.

I think that Bob probably is chomping at the bit and wants to make a...no?

MR. WILSON: No, you've done well.

MR. BOLAN: Well, I think that it's a cancer-causing agent and you keep saying as low as possible, and in my mind if it's a cancer-causing agent it should be zero.

MR. WILSON: No. The answer to that is it's not zero and we do not keep saying as low as possible. We say as low as reasonably achievable.

We are quite prepared...or, you know, to a level that will provide an acceptable risk...I'm quite prepared to sit down with anyone and discuss the question of acceptable risk.

There are starting points here and there are comparisons that should be made. The average fatal accident rate in Ontario, for example, across all industry, is about

5 MR. WILSON: (cont'd.) four to five fatalities per hundred million manhours worked. That, for example, is a starting point as to whether we can judge whether an industry is safe or not. It is clearly what I have used in terms of establishing a corporate performance standard for fatalities in Ontario Hydro. That was in our mind when we established that figure - that figure was in our mind when I have issued, started the campaign that is being waged currently in Ontario Hydro for the reduction of lineman fatalities, because their fatality rate of sixty-plus fatal accidents per hundred million manhour hours worked is quite unacceptable.

10 If one looks across this province at the gamut or at the spectrum of fatal accident rates that exist in various industries, one can look at the total mining fatal accident rate in the range twenty to twenty-five, with fatal accident rates for mine shaft workers in the order of a hundred or so fatal accidents, with the fatal accident rate for demolition workers of four hundred fatal accidents per hundred million manhours worked according to the most..the soon-to-be published fourth annual report, I think, of the advisory committee on occupational 15 health and safety.

20 So that one has to take a look at risk in terms of the spectrum of risk that exists across industries. There is no such thing as zero risk. There is no zero risk.

25 MR. BOLAN: Don't you think as our technology improves, our ability to substitute with other substances to do the job as well, if not better, that we should do everything that we possibly can to take away all possible causes of cancer from the workplace, thereby reducing the workers' vulnerability that much lower?

30 MR. WILSON: Well, I can partially agree with you if you say that first the process or the policy should be one of

5 MR. WILSON: (cont'd.) elimination. Absolutely no question. Let us eliminate if we can.

10 After elimination...first of all, one must identify before one starts on this process, and you must be fully aware of the fairly simple basics that Ontario Hydro is propounding. First one identifies that there is a risk, identifies the problem, and that's the first step.

15 Secondly, the second step is to eliminate the problem. Now, if the problem cannot be eliminated, or if the elimination itself gives rise to risks which are greater in fact than the risk faced, then one may have to then take the third step, which is a process of minimization.

20 After minimization, one is then talking about making sure that there are adequate processes that exist for amelioration of any injuries that might occur.

25 Identification, elimination, minimization and control, and then amelioration of any injuries which might occur.

MR. BOLAN: And I hope we take the chance to do it this time around.

20 Thank you.

DR. DUPRE: Thank you, Mr. Bolan.

Mr. Starkman?

25 MR. STARKMAN: Yes. I just have a few brief questions, and I'm not particular as to who answers them - whoever feels best qualified.

30 CROSS-EXAMINATION BY MR. STARKMAN

MR. STARKMAN: There was some discussion as to the chain of command for asbestos, and I know one of the things the Commission has been concerned about is how large organizations make decisions, and how those decisions filter down to the various people who are actually putting them into effect.

5 MR. STARKMAN: (cont'd.) I guess my confusion is that you have some draft guidelines that I take it are from the corporate level, the corporate office, which deal with asbestos identification and procedures to be followed for removal, which you said were effectively in place or these were the procedures, the policies which were being followed even before this one became finalized.

10 Then someone asked a question about the removal of asbestos at Valley Field...or excuse me, at Lakeview, in 1980, and the answer was, I believe, that that was a decision which would have been made by the local management. I didn't understand what had happened there, why the local management is making a decision when the policies are made in the corporate office. You would think they would be uniform throughout Hydro's system.

15 MR. WILSON: Let me try to answer that. In 1968, we...when I say 'we', let me talk about we, my predecessor... pardon?

20 MR. STARKMAN: The royal we?

MR. WILSON: Yes. The health and safety...the people in the health and safety division realized that at the current levels of exposure to asbestos there was a possible carcinogenic problem, and they took some steps in terms of dealing with senior operational management to start a program of elimination and control, and memos were sent out to managers, 25 senior managers, and accompanying these memos were guideline procedures, procedures for working with thermal insulating materials, lagging, for example, containing asbestos, and these were sent out and to varying extents...and it certainly wasn't perfect...were implemented throughout the corporation.

30 These were procedures for...these were guides for local work procedures, which included the wetting of asbestos,

5 MR. WILSON: (cont'd.) the bagging of asbestos, etc. What we have produced and what was part and parcel of the material that is in this blue book and I think is under item seven, is the bringing together of a corporate procedure for asbestos.

Now, the procedure is, as I said, it's a draft procedure, it's under review, but it's bringing together the whole thing and looking at it from the corporate point of view.

10 MR. STARKMAN: Can I just ask...I'm unfamiliar with Hydro designation of your managers. The first level management, at the field level, what are they designated?

MR. WILSON: Well, first level supervisors are usually foremen, working foremen of some kind.

15 MR. STARKMAN: Then what is the next level?

MR. WILSON: Oh, there must be about ninety levels. That, by the way, is a joke in case my president reads that.

20 MR. STARKMAN: I don't really want to get into every level. I guess what I'm concerned about is, now you are trying to develop a corporate policy, so who would the corporate policy go to? Would it at least go to the...

MR. WILSON: The corporate policy will go to the director and manager levels - say plant managers and divisional directors and plant managers. That's the kind of level at which corporate policies, as such, are lodged.

25 MR. STARKMAN: Prior to this, since this policy is not in effect, whatever policies are in effect now haven't even gone to the people at that level?

MR. WILSON: Well, let me say that a memo...you know, memos have gone out to these people at various times since 1968, in regard to asbestos, and these memos did contain guideline procedures for working with asbestos.

30 The implementation of these may well have been spotty, but I do know that procedures were implemented.

5 MR. WILSON: (cont'd.) We have provided a copy of our procedure that went out, in 1968, to the best of my knowledge, that went out to managers, as far as I know.

10 MR. STARKMAN: So in this new policy, as I understand, when this policy comes into effect, it will go out...

MR. WILSON: That is the procedure, yes.

15 MR. STARKMAN: ...to district managers and plant managers?

10 MR. WILSON: It will, yes.

MR. STARKMAN: Now, if...does anyone check up on those people, or if they don't do it, then that's it?

15 MR. WILSON: Oh, you know, that's part and parcel of...we double check in place. We suspect that there will be some self-auditing, but certainly in our division we will be instituting and carrying out an audit process.

DR. UFFEN: Could I ask a question here that might clarify?

20 MR. STARKMAN: Yes.

DR. UFFEN: Was the corporate structure essentially the same in 1968, or was it quite considerably different?

25 MR. WILSON: No, the corporate structure was considerably different, Bob. The corporate structure as it exists now, I think, would have come into place in the later 1970's.

MR. STARKMAN: I don't propose to get into the changes in Hydro corporate structure. I'm sure we would be here for the rest of the week.

30 Now, this document, you say, would go to district managers and plant managers, and I guess it would also go to, routinely, to the health and safety committee, would that be right, in the various plants?

MR. WILSON: I can't say for certain, but I would

5 MR. WILSON: (cont'd.) presume that the...I think that the health and safety committees do have copies of these.

MR. STARKMAN: I'm sorry, I didn't hear...?

10 MR. WILSON: I can't say that for certain, but I think that they do get copies of corporate procedure.

15 MR. STARKMAN: That's not a firm policy when you have a document such as this, which relates directly to a matter of health and safety, to send it to the health and safety committee at the various plants? It could just get stuck in a district manager's hands?

20 MR. WILSON: It could, yes. So I'm not certain...I can't provide you with an absolutely certain answer to that.

25 DR. MUSTARD: Could I ask a question? Could you make it a corporate policy that it goes to committees?

30 MR. WILSON: Yes, we could. That might well be a good idea, Fraser.

MR. STARKMAN: I guess that's my next, but there is no Hydro corporate policy that all memos relating to health and safety go to the health and safety committees?

MR. WILSON: No, there is not one in existence.

MR. STARKMAN: Why isn't there one? Doesn't that make sense?

25 MR. WILSON: Because we haven't got around to writing all corporate policies yet. The process which we are in right now is one of change, and we have addressed some important policies initially. We haven't written a policy of that nature. It might well be a good idea.

30 MR. STARKMAN: Well, the next area I wanted to ask about was the actual functioning of the health and safety committees as they are presently constituted...

MR. WILSON: Yes.

MR. STARKMAN: ...since the coming into force of

5 MR. STARKMAN: (cont'd.) the Act, now, we don't know whether or not they received Hydro's memos on health and safety. You have told us they may or may not, there is no policy.

But when they meet, you said that each plant now has a health and safety committee?

10 MR. WILSON: Yes. We have drawn up work locations in discussion with the central union health and safety committee.

MR. STARKMAN: And I guess they meet regularly?

15 MR. WILSON: They meet regularly. As I say, some of them are extremely successful and I know of some that are quite unsuccessful.

20 MR. STARKMAN: So they talk about...this is what I'm getting at...they'll talk about problems, health and safety problems that have come up over the last while in the plant, and what if in that talking they cannot resolve a specific issue, what happens to that issue? How is it dealt with?

25 MR. WILSON: Well, I would...you know, perhaps Jim Bolan might best answer that, because it's his side of the house in a sense...I would presume that if it can't be resolved and the union are still quite adamant that they are in the right and it should be resolved, then they can avail themselves of their refusal to work right, which is one alternative.

Secondly, they can and do, I think, refer matters to their central committee, and the central committee will take it up with the health and safety advisory committee.

30 MR. STARKMAN: Yes, and what would the time lag be on something like that, just going that...?

MR. WILSON: Well, it might be quite long, because clearly if the central health and safety committee meets perhaps twice a year, three times a year, then clearly you are talking about a fairly lengthy period. Now...

MR. STARKMAN: You are talking a couple of years

5 MR. STARKMAN: (cont'd.) before you even get a discussion?

10 MR. WILSON: That's perhaps pushing it a bit, but we could certainly be talking a year in some instances. If the problem is one that requires immediate attention, I would certainly say to you that the employees concerned should avail themselves of their right under the Occupational Health and Safety Act, 1978.

15 MR. STARKMAN: So you, as the director of health and safety, essentially rely on that 1978 legislation, the right to refuse? It's almost built in to your thinking...

20 MR. WILSON: Let me say...

25 MR. STARKMAN: ...in the sense that if the process of consultation breaks down at the committee level, you rely on the fact that if the workers feel strongly enough about it, then they will exercise their right under the Act. There is almost a reliance on that.

30 MR. WILSON: I certainly feel that that's a last bastion that the worker has, and it's a terribly important one.

35 MR. STARKMAN: I cited in my presentation the example of Pickering, and I think Pickering's situation alone has convinced, certainly strengthened my belief that the strengthened refusal-to-work rights in the Act are worthwhile.

40 MR. WILSON: Okay. But if it's not an imminent danger, it's something that seems a danger, then it could be a year getting a response back from the health and safety committee?

45 MR. STARKMAN: It can. It might not be a direct health and safety problem, it might be something to do with should we be provided with this rather than have to buy it, or something like this. You know, that's the kind of thing that I would see referred back.

50 MR. WILSON: I have a couple of questions for Dr. Wills. One of the things the Commission was dealing with earlier was the role of the corporate medical officer.

5 MR. STARKMAN: (cont'd.) I take it you are a medical doctor?

DR. WILLS: That's correct.

10 MR. STARKMAN: Are you a family physician, or do you have a specialty in some area?

15 DR. WILLS: My background is that of a professional student. I have a masters degree in biochemistry, my doctorate in medicine, I'm a certificate of the College of Family Physicians, and I also have a diploma in industrial health from the University of Toronto.

20 MR. STARKMAN: But by the College of Physicians and Surgeons, as I understand it, you would be a certified family practitioner?

25 DR. WILLS: That's right. Yes.

MR. STARKMAN: And I take it you are an employee of Ontario Hydro?

30 DR. WILLS: That's right.

MR. STARKMAN: Are you the first person to hold that position, or did you have a predecessor?

DR. WILLS: Oh, heavens, no.

MR. STARKMAN: We keep going back and back.

Sorry, just a simple yes or no.

DR. WILLS: No.

25 MR. STARKMAN: Now, I have some questions about the role of the corporate medical officer. Do you actually do examinations of the employees? Do people under your supervision do those examinations?

30 DR. WILLS: Well, I am not the chief physician at Ontario Hydro. In other words, I have a boss that I report to, who is a physician, who is the chief physician at Ontario Hydro, the manager of the department. He in turn reports to Mr. Wilson as the director of the health and safety division.

5 DR. WILLS: (cont'd.) Now, in terms of examining workers, that depends entirely upon the nature of the examination. If you...I mean we could be here for hours discussing this particular issue - whether you are thinking of pre-employment examinations, the answer is no. If you are talking about screening tests, most screening tests are carried out by nurses in the particular plant and screening test basically is to separate the rough from the smooth...if the person is normal, then they are not seen by a physician; if they have abnormalities, then depending upon their history and abnormalities, they are seen by one of us.

10 MR. STARKMAN: So if somebody, let's say, had some signs of perhaps developing asbestosis or lung cancer, they might be seen by you?

15 DR. WILLS: Yes.

20 MR. STARKMAN: You might recommend that they go, in fact it seems to you that they either have or have not this disease and maybe you recommend they go to the Workmen's Compensation Board?

25 DR. WILLS: Let me say first of all that if a person has a disability, such as a lung cancer, usually this drives them to their family physician because of their symptoms, rather than things cropping up on a surveillance program. So you are talking about results that we discover through a surveillance program.

MR. STARKMAN: Yes.

25 DR. WILLS: When these results are discovered, the worker has these results discussed with them and our opinion is given. If in our professional opinion this person has a disability that is occupationally related, then we would report this to the Compensation Board.

30 There are other ways, too, that we get a handle on the disease burden, if you want, or occupational disease burden

5 DR. WILLS: (cont'd.) in the workplace, and that's through our mortality, our epidemiologic studies, our review of our cancer registry...I could give an example of a worker who died of a mesothelioma. When this death certificate came in, and of course a death certificate is required for the payment of death benefits to the estate, when this came in the diagnosis of the cause of death was mesothelioma.

10 I contacted the family physician who felt that there was not an adequate history of asbestos exposure...the man was a design engineer...and part of my responsibility then, I felt, was to review this man's history. His personnel record indicated that he worked for a stove company summers as a university student, he did have asbestos exposure. His case was then referred to the Workmen's Compensation for their
15 consideration and their decision, and in fact what happened is that they found in his favor.

MR. STARKMAN: I guess...and you are aware, of course, that Ontario Hydro is a schedule two employer?

DR. WILLS: Yes, so we pay...

20 MR. STARKMAN: You pick up the entire cost? You are not in a group insurance...

25 DR. WILLS: No, the issue for me as a physician is diagnosing what I consider an occupationally-related disease. It doesn't matter to me whether it's Ontario Hydro's fault or a previous employer's fault, if fault has to be decided. The whole idea is diagnosing a condition and bringing it to the attention of the Board. The fairness of who pays for it is another issue.

30 MR. STARKMAN: Don't you think that when you are both, you have a medical obligation to your patients and you are an employee of Ontario Hydro, and you are aware that Ontario Hydro is picking up the direct costs of all claims, and you are

5 MR. STARKMAN: (cont'd.) also aware that Mr. Wilson and others are concerned about keeping the counts per hundred million hours, or whatever way he phrased it, down, that there is potentially some conflict in your ability to make a dispassionate assessment?

10 DR. WILLS: I disagree completely. I consider myself a professional, I make decisions about whether or not a person has what I consider an asbestos-related disease on the basis of the facts presented to me. As far as conflict of interests, let me point out that I firmly believe that what is in the best interests of the worker is in the best interests of the corporation...that it is a false sense of loyalty for me to try to cover up problems because I think it might benefit my employer. In the long-term, it will not, it will come back, I will be accused of giving the employer bad advice.

15 I think that what he wants from me is good advice, and good advice is what the appropriate diagnosis is.

20 MR. STARKMAN: So you wouldn't agree with me at all that there may be some swaying of a judgement? Maybe not yours, but someone else's in a similar position? That their employment relationship is not going to sway their judgement at all?

25 DR. WILLS: What is happening in the corporation is that my job is to find...it's health surveillance. I'm there to find occupationally-related disease. The more I find, the better I'm doing my job. I'm going to break Ontario Hydro from within.

MR. STARKMAN: I guess the other...

30 MR. WILSON: Can I comment? I can only say that I endorse fully Michael's position. It is in the best interest of Ontario Hydro to be seen as a fair employer in regard to the health and safety treatment of workers.

MR. STARKMAN: I guess what I was just saying is,

5 MR. STARKMAN: (cont'd.) and I'm not really trying to cast any direct aspersions upon yourself, what I'm really suggesting is that if they want to be seen as a fair employer, do you think it's to be seen as a fair employer that part of the diagnosis or part of what the WCB considers when making its decision, is a diagnosis or recommendation made by an employee of Ontario Hydro, concerning Ontario Hydro, or for that matter any other employee's ailment, whether or not it's job related?

10 MR. WILSON: No, there are probably alternatives that, you know, may appear to be better. One has to examine these alternatives fairly closely.

15 In Quebec, at the moment I think, there is an alternative mechanism being put into place and I can only say that in discussion with my colleagues in Hydro Quebec they shake their head in anguish at the thought of a community physician attempting to diagnose a case of white finger disease as Michael recently diagnosed in one of our regional foresters.

20 I may say, he did so with some considerable delight - I found a case of white finger disease, he said - which was appropriately referred to the Workmen's Compensation Board.

25 To think that perhaps either family physicians or some form of community physician might be able to do this, I think, is extremely difficult. I think we happen to have a good operating system with physicians who have the kind of attitude that they have just portrayed.

30 I can recognize your concern because that attitude could possibly not exist in, perhaps, private industry. But I think that we are doing occupational health physicians a disservice if we think that they are...that their attitude is one of, you know, devotion to the company rather than devotion to the worker. I think physicians are physicians, whether they are occupational health physicians working for a company or not.

5 MR. STARKMAN: I raised it primarily for your comments, but the final...I guess it closes the circle...and would you be aware that the Workmen's Compensation Board is also a fairly large shareholder in Ontario Hydro?

MR. WILSON: Well, that certainly...

10 MR. STARKMAN: Or is that something we should take up with the Workmen's Compensation Board.

15 MR. WILSON: ...a shareholder in Ontario Hydro? I didn't think there were shareholders in Ontario Hydro.

MR. STARKMAN: Well, bond, they are bond holders.

20 MR. WILSON: Well, I think that the bond is going to get paid regardless of whether we perform well or happen to pay ten workers per year workmen's compensation or not.

25 DR. WILLS: I might also comment. I think, as Mr. Bolan is aware, that in some cases, one particular case we have had an asbestos-related problem that was referred to the Board, the Board turned...declined to find in favor of this worker, and as a physician in health services I disagreed with the Workmen's Compensation Board's decision and was part of an appeal process to try and get what I considered an inappropriate judgement by the Board, changed.

They are not always right, as you perhaps know.

30 MR. STARKMAN: Can we just look...can I look at this document with you, Mr. Wilson, just briefly once again?

MR. WILSON: Yes.

MR. STARKMAN: It's number seven.

35 MR. WILSON: It's okay, I'll go out shortly and cancel my appointment.

MR. STARKMAN: I just have about another two minutes. Can you look on page five?

30 MR. WILSON: Yes, I'm looking at page five, yes.

MR. STARKMAN: In Roman numeral number five on page five?

5 MR. WILSON: Is this on the asbestos document?

MR. STARKMAN: Yes.

10 MR. WILSON: Yes.

MR. STARKMAN: It begins:

"For protection of the public, compare emissions to environmental standards or criteria to ensure that discharges are no more than ten percent of the regulatory limits, having first taken all reasonable measures to minimize the hazard."

15 I'm just wondering what that refers to. Does that mean that if the regulatory limit is two parts per million, then Hydro is going to go for ten percent of that? If it's one, they'll go for point one? Point one, they'll go for point zero one?

20 MR. WILSON: That is correct.

25 MR. STARKMAN: And on page...I guess it's one dash three, you quoted this in your opening talk, in paragraph two,

"Concerning the achievement with respect to the health and safety of his employees performing functions for Ontario Hydro, you are seeking to attain a standard for on-the-job risks such that its safety performance for corresponding activities falls in the high range of that of the comparable electric utilities in Canada and the U.S."

30 MR. WILSON: "Not lower than the average safety performance of all industry in Canada and the U.S.A."

MR. STARKMAN: Right. So Hydro's chosen to lump itself in...for some reason, why did they chose America?

MR. WILSON: Let me say that if that is rewritten,

5 MR. WILSON: (cont'd.) and I think that particular one, you know, may need some revision, I would say the average safety performance of all industry in Ontario would be a more appropriate statement.

MR. STARKMAN: I have no further questions.

DR. DUPRE: Did I hear you say, Mr. Wilson, that you might want to cancel...

10 MR. WILSON: Yes. I was going to leave at four-thirty, but I'll phone and cancel my meeting.

DR. DUPRE: May I suggest, then, perhaps that we rise for ten minutes or so, so that you can make that phone call?

15 MR. LASKIN: I don't know how long...I mean, I'm prepared to waive my questioning if...I mean, I don't know how much Mr. Wilson is being inconvenienced and being polite here. I don't know how long Tom intends to be, or indeed the Commissioners.

MR. LEDERER: Well, I don't need longer than three minutes. I'm not sure the...

20 MR. WILSON: It makes no difference to me now. You know, ten minutes has meant that my engagement is gone.

DR. DUPRE: Well, perhaps we could continue until ten to five or so, if that fits in better with your schedule.

MR. WILSON: I'm available any time you like now, Dr. Dupre.

25 MR. LASKIN: Are you going to try and make your appointment?

MR. WILSON: No, at the end of the session I can phone and reschedule my appointment.

MR. LASKIN: Well, we should probably, then, let Mr. Wilson at least cancel his appointment.

30 DR. DUPRE: That's what I had in mind.

MR. LASKIN: I thought you were going to sit through.

THE INQUIRY RECESSED

THE INQUIRY RESUMED

DR. DUPRE: Well, thank you, gentlemen, for
5 accommodating your schedule to us.

Mr. Lederer, would you proceed, please?

MR. LEDERER: Thank you, Mr. Chairman.

CROSS-EXAMINATION BY MR. LEDERER

10 MR. LEDERER: Mr. Wilson, I'll be very brief.
Really, I'm just seeking clarification of a couple of things
you have already said.

15 Strangely enough, my first questions really
continue on from Mr. Starkman's last questions. As you will
recall, you just told him before we broke that it was the
ambition or the aim or whatever of Ontario Hydro to find itself
in the same position as the average industry in Ontario.

First of all, have I said that correctly?

MR. WILSON: Let me say that our immediate
objective is to achieve that. That objective will be readjusted
when that target is attained.

20 MR. LEDERER: Well, I think you have probably
foreseen my next question, but just to get it on the record,
what's interesting about the notion of an average is that there
are a few companies that are higher, and companies that are lower,
and what obviously interests me is why would you make it your
aim only to go for the average? Why wouldn't you want to find
25 yourself among the low end of the scale?

MR. WILSON: Because one...in establishing
objective, performance objectives, I think one must be realistic.
We took a considerable time to establish this objective, it
wasn't done lightly. It has a supporting document of some length,
which took into account such things as statistical reliability of
the achievement, the possible time frame that was concerned, so it

5 MR. WILSON: (cont'd.) really isn't'...although it
may seem a simple number, it wasn't exactly a simple number, and
it's a significant achievement from where we were at that time.
It represented a fifty percent improvement at the time it was
established.

10 MR. LEDERER: Do I understand you to be saying,
though, that when the day comes that you achieve that goal that
you will readjust your goal and you may then point to something
lower?

15 MR. WILSON: Yes, I would say that's correct.

15 MR. LEDERER: One thing that I didn't quite
understand, I'm a little bit confused about what I would call
the committee structure. It seemed to me in my naivete there
were committees all over the place, and let me see if I
understand correctly.

First of all, at any plant or location where
Ontario Hydro is a fixed site, you would have a joint health
and safety committee, is that correct?

20 MR. WILSON: By law we are required to have a
joint health and safety committee where there is a work site,
a work location, with more than twenty workers. So we have
sat down with our union, with the central health and safety
committee of the OHEU, and negotiated and said where we will
have work sites...where we will have joint health and safety
committees.

25 MR. LEDERER: Apart from that, as I understand it,
you also have a central health and safety committee which I take
it is located in Toronto?

30 MR. WILSON: We have...we have a safety, a health
and safety advisory committee, which is a purely management
committee, and the health and safety advisory committee meets
with a union, a central union health and safety committee, two or

MR. WILSON: (cont'd.) three times per year.

5 MR. LEDERER: What interests me is, and perhaps you'll just tell me if you have this, in essence, in that two committee structure that comes together in Toronto, where so much of what you do seems to be tied up in the notion of corporate policy and central thrusts of corporate aims, would it not make sense for Ontario Hydro, given it's size...and I think you said there were twenty-four thousand permanent employees...would it not make sense for you to have, for want of a better term, a central joint health and safety committee, which met more regularly and looked at corporate structures and corporate policies in this field on a more regular basis than this coming together and continually negotiating between two separate and rather more partisan groups?

10 MR. WILSON: That's a possibility, but I think that Ontario Hydro currently the responsibility for management rests with management. We do not, we are not into a joint management situation and I don't think there is any intentions of going into a joint management situation.

15 MR. LEDERER: I didn't mean to suggest it would be management. My understanding is the committees are advisory, that management still makes the decisions. The point is, it would be more...it would be a formalized participation for the union on a central level to deal with this problem on what I would presume, if you put my structure into place, would be a more consistent and regular basis.

20 MR. WILSON: That's an alternative. The one we have, I think, is working reasonably well.

25 MR. LEDERER: Now, one other thing. I understood you to say, and we all have a way of throwing off these lines so I may have misunderstood it, you referred to Cadillacs and Chevrolets. Do you recall that comment?

MR. WILSON: I do, yes.

5 MR. LEDERER: As I understood it, what you were
telling us is that the way in which you deal with, and the way
in which Ontario Hydro deals with radiation through whatever
regulations or corporate policies you have in place there, is
a Cadillac, or I presume a heavily-refined and successful and
sophisticated approach to the problem, whereas what you have
placed before this Commission as your draft policy in the area
10 of asbestos, if I understood you correctly, is a Chevrolet,
which I take it is your first step and you refine it later on,
or how does that work?

15 MR. WILSON: Let me say that there is no question
that the radiological safety program in its entirety is a very
excellent occupational health program. I don't think there is
any question about that.

20 We have good training, excellent...procedures
that are well-written, followed, established. We have...we
inform workers fully in extensive training, which goes on for...
in radiological safety alone for six weeks, six whole weeks...
so that we have a very fine program.

We have good exposure records, for example. If
you wish to know the exposure of anyone, we can simply call that
up and we have it by year. This exposure information is supplied
annually to workers so that in total, it's a good program.

25 There's a good process in existence for the reduction
of exposure, and while there may be some disagreement between
ourselves and some union members on the question of the extent
of the risk, I think that even they would say that it is a
well-based program.

30 We've got a long way to go in asbestos before we
reach that kind of level, and this, I think this central document
here is a start toward that process.

MR. LEDERER: Well, radiation and asbestos are both cancer-causing elements, is that a fair statement?

5 MR. WILSON: Yes, they are very similar, I would say, in nature. The ability to measure radiation readily is perhaps...well, it's better. We can do that more readily.

10 MR. LEDERER: What interests me about this is, since the danger is the same, as you've just said, why is it that you are satisfied with the Chevrolet at this stage in relation to asbestos, when you've got a Cadillac for radiation?

15 Could you do better now than this policy? You obviously see some room for improvement, or you would never have made that comparison.

MR. WILSON: I would say that perhaps in both cases we are looking for, you know, good, well-running Chevrolets - that perhaps is the point I was trying to make.

I don't think we've even got, if I can keep using the analogy, a Chevrolet as far as asbestos is concerned. We've got some way to go before we have.

20 We have no exposure records, for example. Our training is probably inadequate, our health surveillance is, to a certain extent, incomplete, so that we have, I would say, a long way to go before we are satisfied with an asbestos program.

25 MR. LEDERER: Well, my question to you was, why are you satisfied with a Chevrolet at this point? Am I hearing that the reason you are satisfied is because, given the lack of information you can't do any better at this point?

MR. WILSON: I think you are misunderstanding. We do not, in asbestos, even have a Chevrolet.

30 MR. LEDERER: All right. Well, whatever it is we have...I was about to talk about Volkswagens, but that may show my particular prejudice. My point is quite simply, are you telling us...and I'll put this question to you as directly as I

5 MR. LEDERER: (cont'd.) can...are you telling us that given the knowledge that you have now, the data that you have now, that this draft policy is the best that can be done?

10 MR. WILSON: This is an immediate start, this is a good start on a corporate policy. It has to be supported yet by some additional documents in regard to exposure records and in regard to health surveillance, documentation of these processes, but it's certainly a good start.

15 MR. LEDERER: I just have one other question for you. You were asked earlier about the manner in which you arrived at your new definition for an asbestos worker. My only question is, did you consult the union when you did your work at arriving at that redefinition?

20 MR. WILSON: The answer is no. The document is a draft document. The union will have an opportunity to input to the health and safety advisory committee if they are dissatisfied with the definition, and we will listen to their input.

25 MR. LEDERER: So your system allows for consultation with the union, albeit at a later stage than you have now arrived at?

MR. WILSON: Yes, that's correct.

MR. LEDERER: Thank you, Mr. Chairman. Those are all my questions.

DR. DUPRE: Mr. Laskin?

25 EXAMINATION BY MR. LASKIN

30 MR. LASKIN: Just following up on that question, and perhaps it's coming back to something that you were asked before, but is there any reason why a document of this nature wouldn't go to the health and safety committee, which as I understand it, at least as contemplated by its founders, had as an objective to look at sort of long-range health policies rather

5 MR. LASKIN: (cont'd.) than, you know, specific workplace problems that come up from day to day?

10 MR. WILSON: It will, but I don't think it has gone through the stage...it has not gone through the management process yet, and when it has gone through what we think is the management process - you know, the process of being distilled by management - then I think it certainly will go to the union.

15 MR. LASKIN: It will go there.

20 Can I just...I just wanted to ask Dr. Wills a couple of questions, and there's one phrase in here that got my interest, and I think Dr. Uffen's, and maybe you can explain it to us, and that's this hazard rating index which is found at page three dash four of tab seven. I suppose the formula you've got is at the top of page five.

25 MR. WILSON: Can you just explain, can you put a little flesh on what we find here on the page?

30 DR. WILLS: Well, I think I'll answer it partly, and I think Jim To will tell us.

20 When you are considering any sort of an approach to an asbestos-related problem, generally the two approaches are controlling exposure, which is an industrial hygiene problem if you like, and health surveillance.

25 What we wanted to do in some way was uncouple these, because in fact what we want to do is come up with some sort of a hazard rating which would indicate to management whether or not their needs to be more stringent workplace control processes instituted, and basically that's what this hazard rating index is. It is a guide that indicates whether or not further control measures are required.

30 How much flesh do you want?

MR. LASKIN: Well, if you...

MR. TO: May I...

MR. LASKIN: I suppose, to take an example, where

5 MR. LASKIN: (cont'd.) do you end up on your hazard rating index if you are working with chrysotile at two fibers per cc over a standard work week?

10 10 MR. TO: First of all, the risk of developing an asbestos disease is a function of duration of exposure, the type of asbestos, as well as the concentration. So if you look at the so-called hazard rating index, which takes into consideration these three factors, and this is what we try to do - taking into consideration these three factors.

15 Again, we also look at the Ontario Ministry of Labour's proposed standards, and the numbers, the index that we have incorporated here account for...is more stringent than the Ministry of Labour's proposal.

20 15 In fact, it's a factor of about ten, more stringent than the Ministry of Labour's proposal.

MR. LASKIN: I see.

25 20 MR. TO: We have taken into consideration the NIOSH criteria and all the Ontario Ministry of Labour's criteria, and come up with a number that we consider by professional judgement that will be conservative, yet at the same time compliance with the law - whatever law that will be forthcoming, and at the same time we feel that it is reasonably achievable.

DR. DUPRE: I wonder, counsel, if our friends can help me by checking up the chairman who tried to answer the question that was posed.

30 25 I tried to figure out the HRI for an individual who worked forty hours a week with...at a two fiber level of exposure, with chrysotile, and worked for a full year.

That meant, as near as I could figure it out, that E was equal to forty, that the asbestos concentration in fibers was equal to two, that the asbestos-type factor, this being chrysotile, was one, and that the asbestos frequency factor was two, and when I multiplied that in my lowly little mind, I

DR. DUPRE: (cont'd.) think I got a hundred and sixty divided by forty, and found a hazard rating index of four.

5 MR. TO: That's right.

DR. DUPRE: Which then under the action guide led me to believe, if I read page six correctly, that at four you would review the work process and implement additional workplace control.

10 MR. TO: That's correct.

15 DR. DUPRE: Now, I'm still trying to compare that arithmetic to what would happen if you were running through either the current guideline of two fibers, or the proposed standard of one.

20 MR. LASKIN: Just looking at the mathematics, if you...

25 DR. UFFEN: You have a HRI of one, is that correct?

MR. TO: Yes.

20 MR. LASKIN: You would have to be working at point five, if you worked a forty hour week and you worked a normal year, simple mathematics tell me that you've got to be working at point five, is that right, to achieve a hazard rating index of one?

25 MR. TO: You do a little calculation and you would come up...we have done a lot of calculations on this...unless we are wrong, but we believe that we are quite correct and quite conservative in this HRI, and the numbers eventually will be more stringent than the proposed regulations.

DR. UFFEN: Could I ask my question?

MR. LASKIN: Sure.

30 DR. UFFEN: I found it ingenious, and I have a couple of quick questions and then a concern.

The quick question is, does anyone else use this HRI?

MR. TO: Not to our knowledge.

DR. UFFEN: It hasn't been exposed to normal
5 peer judgement that goes on in the world, so you don't know
whether it's acceptable yet?

MR. TO: Sure.

DR. UFFEN: All right. Now, the thing that worries
me is the assumed interchangableness of the factors. For example,
if you double one, half another, you still get the same HRI.
10

Would this work for the case of short exposure
to intense dust?

MR. WILSON: I don't know whether we can fully
answer that or not. If we make an assumption of a linear dose
response, the assumption is probably correct.

DR. UFFEN: That this is a built-in assumption
which is not clear unless you explain it or somebody asks you?
15

DR. WILLS: What you are saying is that in fact
the section three dot four with the hazard rating index probably
requires clarification and amplification for the uninitiated.

DR. UFFEN: As to when it can be used with some
20 confidence and when it should be not used.

The question of intense exposure for short
periods of duration has come up over and over again in our
hearings, in demolition and things like that. Would it be
safe to say, then, just to get this nailed down, would you or
would you not recommend using this for that particular situation?
25

MR. WILSON: Well, the trouble is I don't know a
great deal about the concentrations that might arise during
demolition work, and I don't really know what the shape of
the dose-response curve, and I would say that this is applicable
at concentrations...we would consider this applicable at
concentrations below the ceiling factor that is being proposed.
30

DR. UFFEN: What about ten times above the

DR. UFFEN: (cont'd.) ceiling factor?

5 MR. WILSON: As I say, I really don't know the shape of the dose-response curve. Linear dose-response curves through zero are generally considered to be conservative. That is sometimes challenged. In radiological safety, for example, I think there is a considerable body of knowledge that would justify that.

10 I think there is some knowledge of linear dose-response curves for asbestos, although I think they are somewhat shaky in terms of the measurements, the concentration measurements that have been made.

15 MR. LASKIN: Dr. Wills, this is a short question and I think your evidence, or Mr. Wilson's evidence was, that you have discovered three mesotheliomas within Hydro to date, and can I ask you whether you have any accurate information as to the exposure, and in particular as to what fiber type?

20 DR. WILLS: One of the mesothelioma cases I mentioned previously, and this is the man who was exposed to asbestos prior to joining Ontario Hydro, at a stove company, and I have absolutely no knowledge of his asbestos exposures.

25 Of the other two, one in fact worked at one of our generating stations. His exposure to asbestos, I can't recall the exact nature of his job, but it was a fairly minimal level of exposure. However, prior to...you see, the problem is in talking about what kind of exposures people have had, the kind of worker that Ontario Hydro would select as fitter, mechanic, mechanical maintainer, to do lagging work, to work on turbines, is someone who has had previous exposure to asbestos in shipyards, in other kinds of jobs, and I'm not trying to say this to minimize our responsibility. I'm saying that all of them have had previous exposures. I can say definitely one did not have exposure within Ontario Hydro, but the other two, it's difficult

DR. WILLS: (cont'd.) to quantify because we just don't have good dose records going back...exposure records going back into antiquity.

5

MR. LASKIN: The real point of my question, actually, wasn't so much exposure levels as fiber type, and specifically do you have any evidence one way or the other that these people were exposed to crocidolite?

10

DR. WILLS: Most of the asbestos that we have in Ontario Hydro is chrysotile, but the exact fiber types that they were exposed to I can't comment on, because we don't know.

MR. LASKIN: You don't have any prior work histories which would give you any further information on that?

DR. WILLS: No.

MR. LASKIN: Okay.

15

Is Hydro presently being covered by the Ministry of Labour's surveillance program?

DR. WILLS: You mean the occupational chest disease service?

MR. LASKIN: Yes.

20

DR. WILLS: The answer to that is yes.

MR. LASKIN: How do you contemplate if this policy which is tab seven goes into effect, what's the correlation between your own surveillance program and the occupational chest disease surveillance program?

25

DR. WILLS: Well, the whole approach of the Ministry of Labour is that if you can pay for it and provide it yourself, you do it. Presumably at some point, if we become an approved facility, we'll carry out the surveillance program on our own. I think that in some ways we can do a better job than the occupational chest disease service can. Not that I'm criticizing the competence of the people who interpret the x-rays, or interpret the pulmonary function tests, or report the data to us, but there are some logistical problems in having this van come around

30

5 DR. WILLS: (cont'd.) to different parts of Ontario, and when they turn up with relatively short notice, you find that some people are on holidays, some people are sick, some people are on a different shift, and some people, for some reason or other, are doing work they can't be released from. As a result, we don't catch everybody.

10 When they come around the next time, perhaps by chance those that didn't get caught last time still don't get caught, so there are great gaps.

15 When it comes to reporting the information to us, x-rays and pulmonary function tests that are done in March, we might not get the reports to us...we might not see the results until maybe four months later, three or four months later, and then within a very short period of time we then contact the workers, but there has been such a long delay that I think workers quite justifiably get concerned and wonder what's the delay, why is it taking such a long time.

20 So I think that we can provide the same service faster, more efficiently with better coverage, and if we become an approved facility we would carry on with the same type of surveillance...and by that I mean reporting in the same manner... so that whatever files, whatever records that they have, our reporting techniques would be compatible with, so that there wouldn't be a set of records going up to a certain point, stopping, and remaining and with them, and then our starting that were 25 entirely different. There should be compatibility.

30 MR. LASKIN: Both programs, the one in place now and your contemplated one, are voluntary?

DR. WILLS: They are voluntary now, and workers have refused to participate in these programs. In the future, when the Asbestos Regulation becomes law, I can't really say what will happen to the voluntary aspect of participation in a program.

5 MR. LASKIN: In terms of your own program, do you expect to be reading your own x-rays? I mean, will you have the capability and staff at Hydro to read your own x-rays...I mean not your own, but the examination...

DR. WILLS: I don't anticipate that we will read our own x-rays. I anticipate that x-rays will be read by radiologists.

10 MR. LASKIN: Employed by whom? Private radiologists?

15 DR. WILLS: Well, it would be somebody who is either a private radiologist, or a radiologist in a clinic who, of course, would bill us for his service. If you are talking about or defining an employment status in the sense that he is going to bill us for his service, then I guess we are going to be his employer.

MR. LASKIN: But you are not planning to use the services of the occupational chest disease branch of the ministry?

20 DR. WILLS: Well, we might or we might not. If they are going to charge money, we would have to see from a competitive point of view whether or not they can deliver the service that we want. I would say in the past the problem has been complete coverage of all of the workers on a reliable basis over a period of time.

25 MR. LASKIN: Is that one of the things that prompted Ontario Hydro to initiate its own internal surveillance program?

DR. WILLS: Do you mean in the future?

MR. LASKIN: Yes.

30 DR. WILLS: That's one of the problems, and that's one of the reasons that we have, and I might say that in the past the readings...I have to watch myself here...the readings that, the interpretations that we've had from the chest disease service have been quite variable. We've seen a drift in the kinds

DR. WILLS: (cont'd.) of reports that we've had,
and by drift I mean the terminology that they would use from year
5 to year would change, and that's very difficult because when you
start getting different people reporting in different ways, with
different trends in reporting, you don't always know where you are.

MR. LASKIN: Is that a phenomenon that's still
taking place, or are we speaking of the more distant past?

10 DR. WILLS: Well, I would say it's taking...I have
noticed that phenomenon over the last two to three years. Whether
or not they have stabilized, I can't say. We'll just have to
wait for the next couple of years to see if they have in fact
stabilized.

15 MR. LASKIN: Just one or two final questions of
you.

Do you...I think you've indicated that you do
report to the WCB in respect of abnormalities that you might find?

DR. WILLS: That's correct.

20 MR. LASKIN: Does that include...do you report
pleural disease? Do you report pleural thickening, or the
occurrence of pleural plaques?

25 DR. WILLS: Yes. And that's why if you notice
the statistics that Mr. Wilson showed, there have been eighteen
cases of pleural abnormalities, three of whom have been
recognized by the Board as being disabled from the pleural
disease. The other fifteen are recognized, the pleural problems
have been recognized as a marker of asbestos exposure, but there
has not been any disability. The pulmonary function tests are
normal, and hence these people don't have a compensable problem.

30 The thought, I think, behind reporting these to
the Board, the thinking process goes like this: We have found
an abnormality, it's probably asbestos-related and therefore
we should document it. We have to inform the worker, I feel that

DR. WILLS: (cont'd.) we should inform the Workmen's Compensation Board for future considerations.

5 DR. DUPRE: May I ask who you inform at the Workmen's Compensation Board?

DR. WILLS: Pardon me?

DR. DUPRE: Who do you inform at the Workmen's Compensation Board?

10 DR. WILLS: Who do we inform? You mean how do we go about...

DR. DUPRE: Is it an adjudicator, the Board in general...

DR. WILLS: No.

DR. DUPRE:is it Dr. Stewart...?

15 DR. WILLS: Okay. What happens, when we make a decision that we feel that there should be some notification to the Workmen's Compensation Board, the first thing we do is go to the worker and discuss it with him.

20 Thereafter, a letter goes to management, with a copy to the worker, saying that as a result...we use very arcane language because of medical confidentiality...we say that because of a recent screening test it appears that this man has a condition that is a chest condition that is related to his asbestos exposure, and because of this and for his benefit the Workmen's Compensation Board should be notified and a form seven should be submitted.

25 Management, then, we hope, will comply and submit a form seven. To make sure that they do, we have a copy going to the worker so that everything is kept above board.

We provide the confidential medical information to the Board, to Dr. Stewart.

30 DR. DUPRE: After a form seven has been filed by letter?

DR. WILLS: Yes, because we found in the past when we were keen and eager, the two pieces of information would arrive and the Workmen's Compensation Board wouldn't be able to put the two together, so it's best to have a claim number before we forward the information to the Board so we can say, 're claim number such and such'.

DR. DUPRE: Do you have a fallback position?

DR. WILLS: What do you mean?

DR. DUPRE: If a form seven is not forwarded by management?

DR. WILLS: A form seven is not...the situation of occupational disease, it always has been.

The fallback position that we rely upon is...two things. One, we have sent a letter to the employee telling him that management has been advised to submit a form seven, so we feel that if management doesn't, the worker will start scurrying around either directly or through his representative.

Also, the letter that I send to management, not only is there a copy to the worker, but there is also a copy to our claims section. Then they set up a little file saying, well, we're going to wait for a form seven, and if they don't get it, they start harrassing the management, requesting that this be submitted, and they are late, why are they late, and so forth.

MR. LASKIN: Does the worker...the worker or the worker's own physician...get a copy of everything that you submit to the WCB?

DR. WILLS: The worker does not. The worker, we sit down with the worker and review his medical file with him.

If he wishes material sent to his family physician and signs a consent to release information, we will.

MR. LASKIN: Other than that, the medical file that you forward to the Board is basically confidential in between

5 MR. LASKIN: (cont'd.) you, or your department, and the Board or the Board's physician?

10 DR. WILLS: No longer, presumably, because of the changes that are going on.

15 MR. LASKIN: Okay. But as a result of those changes, has that caused you to change your practice in any way?

20 DR. WILLS: No. There is nothing that we report to the Board that I would have any concerns about being viewed by a worker. I think right from the very beginning we have always tried to present information to the Board that to the best of our knowledge is factual, and stay away from hearsay and areas that are not relevant to the claim.

25 MR. LASKIN: Mr. Wilson, I just have a couple of questions of you. I would like to look at your figure one on the written remark, which was presented earlier, which is the corporate structure.

30 Can you just give me some idea how many executive vice-presidents are we talking about, and how many presidents?

20 I guess really what I'm asking is, at what level does your position find itself within the whole heirarchy at Hydro?

25 MR. WILSON: There are two executive vice-presidents, there are one, two, three, four, five, six, seven, eight vice-presidents, and I report to the vice-president, human resources.

30 MR. LASKIN: And he in turn...?

MR. WILSON: He in turn reports to the executive vice-president, planning and administration, who reports to the president.

It's a fairly strong voice that we have. Let me say, it is adequately strong.

30 MR. LASKIN: All right. Can I take you to this

5 MR. LASKIN: (cont'd.) table two which you displayed, entitled Usefulness of Local Health and Safety Committees.

MR. WILSON: Yes.

10 MR. LASKIN: Can I just ask you, and that's really the only questions I wanted to ask you, just about this table and some questions arising from it.

15 Was this as a result of...was this a specific questionnaire that you prepared for the purpose of this particular submission to the Commission?

MR. WILSON: Yes, and I would like to caution you that it is, in a sense, very inadequate as a questionnaire.

It was simply to go and attempt to get a flavor, primarily for the Commission, of how health and safety committees are functioning.

15 MR. LASKIN: Did you ask any questions other than the question that is posed here?

MR. WILSON: No, I don't think so.

20 MR. LASKIN: Did you sample...how did...there are fifteen respondents on the workers side and fifteen on the management side?

MR. WILSON: Yes, yes.

25 MR. LASKIN: Are they representative of all of the...

MR. WILSON: I requested that they attempt...that it may be reasonably representative...some stations, some regions, some construction sites, generation project sites.

MR. LASKIN: When we see the number four beside 'very well', does that represent two health and safety committees, both sides agreeing that it's working well, or does it represent more than two?

30 MR. WILSON: I don't know, but from my own experience, you know, I've seen some committees functioning.

5 MR. WILSON: (cont'd.) For instance, the committee at the Nanticoke Generating Station, I took part in its, one of its meetings fairly recently when I had occasion to be on the station to present an award for working for, I think it was two million manhours...certainly it was a million manhours without a lost-time injury.

10 I sat in on the committee working, and that committee was working extremely well. I think that both management and union representatives there would say, our committee is working.

15 Now, you know, I would think in that case you would get an answer, if Nanticoke were in this survey, and I am not certain, you would get an answer, yes, the committee is working.

20 MR. LASKIN: Can you put your finger on any factors, from your experience, that would make for better committees rather than worse committees?

25 MR. WILSON: Yes. I would say that there has to be some measure of good faith on each side, and that sometimes is not present.

Past experiences, perhaps, on both sides in...what can I say, the word I'm looking for, I've forgotten it...adversary situation, if there's past experiences of adversary situations, I don't think they function well.

30 MR. LASKIN: Just on that point, before you leave it, I don't know whether you are familiar with the Burkett Commission on...

MR. WILSON: Mines?

MR. LASKIN: On mines.

MR. WILSON: Yes.

35 MR. LASKIN: And whether you happen to have read his comments?

5 MR. WILSON: I'm reasonably...I'm not reasonably familiar, I am familiar.

10 15 MR. LASKIN: As I recall it, one of the points that he made was that joint health and safety committees might work better if the people on the committees are not otherwise involved in the union/management negotiations, because if they are otherwise involved they are more likely to promote an adversarial nature, adversarial climate, and I suppose my question is, what is the experience of Ontario Hydro in terms of the composition of committees and, in your judgement, has it affected the manner in which they operate?

20 25 MR. WILSON: I don't think I've enough information to give a real sound answer on that. I think you would find that throughout Ontario Hydro there was probably, among management at least, a general agreement, perhaps some measure of agreement, that committees would perhaps work better if, say, the union were...if it weren't, perhaps, union-appointed, and I think I made that point.

25 30 However, the one factor that we have found and that we recommend in terms of committees, is that the management membership of the committee should not be the, for example, on a station should not be the station manager or the station production manager. It should be a management position that reports to them, but not them. Because what happens is that if that's the case, then you are simply getting right away into an adversarial position, and you're far better to have someone who does not necessarily, from a management point of view, immediately represent the top line management.

30 MR. LASKIN: So that they then, I take it, can perform a more consultative role?

35 MR. WILSON: I think it can be a more discursive session than if it's top management and union steward, for example.

5 MR. WILSON: (cont'd.) I just don't think that's the appropriate mechanism for a health and safety committee.

10 MR. LASKIN: Is that an unwritten policy within Hydro, that you tend, that you do not have the top management of particular plants on these committees?

15 MR. WILSON: It's certainly unwritten. If someone comes for advice on how to improve the method by which their committee is functioning, and if we see that top management is on the committee, we would recommend that they be replaced.

20 DR. DUPRE: I take it that your organization chart that we were looking at is in line with that, in that of course I see that you report to a vice-president, human resources, who is quite distinct from your vice-president, corporate relations who probably is the individual charged with the collective bargaining?

25 MR. WILSON: No. Strangely enough, the vice-president, human relations, is the bargaining...

DR. DUPRE: Oh, I see.

30 MR. WILSON: ...has the bargaining responsibility.

DR. DUPRE: Why do you do that?

35 MR. WILSON: Because it was felt that human resources, as such, included the question of compensation for human resources.

40 DR. DUPRE: But I guess that that makes me face up to a question that you yourself posed when you look at the union side. You see, if you people, if the management side is conducting the health and safety program through the same vice-president who is involved in collective bargaining...well, aren't you handsome is as handsome does, inviting the unions precisely to do what you say maybe they shouldn't be into?

45 MR. WILSON: Well, it's a different director. It's not under the...the labour negotiations are under the director

5 MR. WILSON: (cont'd.) of employee relations. I am the director of health and safety. So somewhere in an organization these things have to come together. The level at which they come together happens to be the vice-presidential level.

I mean, even if it were separate, in corporate relations it would come together at the executive vice-president level, or the president.

10 DR. DUPRE: At the level of the president, or the board or somewhere.

15 MR. LASKIN: I think those are all my questions. Thank you very much, Mr. Wilson.

DR. DUPRE: Dr. Uffen?

DR. UFFEN: One final one, how many people do you have in your health and safety division? Can you...both professionals and supporting staff?

20 MR. WILSON: Now, I should have come prepared for that question. It's a large number, although Michael says it's too few.

25 But we have about two hundred and thirty people in our organization. Now, they cover a wide range of services and functions, from the writing of corporate policy to the supply of different kinds of services - from health services, health surveillance services, clinical health services, industrial hygiene services...

DR. UFFEN: How many medical men do you have?

MR. WILSON: How many medical men do we have? Michael says too few, but we have about six...is it, Michael?

DR. WILLIS: Four full-time, and two part-time.

MR. WILSON: Four full-time and two part-time. And let me say that I think that number is on the light side. I'm agreeing with Michael.

30 DR. DUPRE: I have just two areas of questioning,

DR. DUPRE: (cont'd.) if you and your colleagues can just bear with me for a few moments.

5 The first takes me to your presentation, and to table six - the summary of asbestos results in insulation removal.

10 Your text speaks to table six on page fifteen, and I notice...well, let me put it this way...I would just like to ask you some questions about the table.

15 For example, I see that there were three insulation removal operations at Lakeview Generating Station. Now, these would be removal operations that took place at different times? And then there are two at Peace and one at Pickering?

MR. WILSON: Yes.

15 MR. TO: On three separate occasions.

DR. DUPRE: And these were in different years?

MR. TO: Different times, yes.

DR. DUPRE: Since 1968?

20 MR. TO: Since 1979/80, yes. These are the recent examples of monitoring results. These are part of the examples, part of the total results that we have had.

DR. DUPRE: Right. See, on page fifteen, when you present this data, you present it in a paragraph where you begin by saying:

25 "We have little data on exposure conditions prior to 1968, but since that date we have some information on concentrations at work locations during removal of asbestos insulation. An example of this is provided in table six."

Do I take it that you did measure concentrations at work locations in all removal operations since 1968?

30 MR. TO: I cannot say a hundred percent as to whether we have taken samples from all removal locations. First of all, we have to define the job. There are two kinds of jobs -

5 MR. TO: (cont'd.) major jobs, or major removal jobs, and small removal jobs. For major removal jobs, I would say that we do have some information. Again, I cannot say a hundred percent that we do have all removal jobs, that is, data for removal jobs. We do have most, a lot.

10 MR. WILSON: Mr. Chairman, we do have a large body of information on exposure conditions during removal operations. I provided an example, but we do have a fairly large volume of

information which I think could be made available to the Commission if it so desired.

15 DR. DUPRE: Then going to table six, may I take it that these are examples since about 1977 or 1978?

MR. TO: These are examples, yes.

20 DR. DUPRE: Of recent years?

MR. TO: These are examples of recent years.

DR. DUPRE: Okay.

25 May I ask what kind of measurement techniques you use to measure average concentrations, for that matter even some of the maximum concentrations that are as low as they are here?

MR. TO: We are using the same technique as indicated, or as described, by the NIOSH method, or the same method as currently used by the Ministry of Labour. Basically it's a...

30 DR. DUPRE: Using electron microscopy?

MR. TO: No, no, no. It's...basically it's a membrane filter.

DR. DUPRE: But with an optical microscope?

MR. TO: It's a membrane filter collection using a pump, drawing air at two liters per minute, for about two hours, sixty minutes to about two hours in duration, and again these represent personal lapel samples as well as area samples.

5 MR. TO: (cont'd.) Then the samples were counted in industrial hygiene laboratories, using the optical method.

DR. UFFEN: You can get a figure, but can you trust that figure - the one that says point zero three for Lakeview Generating Station? Point zero three?

10 MR. TO: No. Our detection limit is point two, I believe.

DR. WILLS: Jim, for that one it's point zero one.

DR. UFFEN: Point zero one?

MR. TO: I believe...

DR. DUPRE: With the optical microscope?

DR. UFFEN: And the membrane filter method?

15 The Ontario Research Foundation tells us they don't trust any measurement less than point one fibers per cc.

MR. TO: Our detection limit goes down to about point zero two, if I remember correctly. Yes.

DR. UFFEN: Have you been intercalibrated with other laboratories?

20 MR. TO: Yes. We have exchanged slides with the Ontario Ministry of Labour, and our results are within the comparable limits with the Ministry of Labour.

DR. UFFEN: Are those very low ones, point zero three?

25 MR. TO: No. No, we are looking at...there are certain standards based on the slides, and those are comparable.

DR. DUPRE: Just one other question at this juncture, about the table. I take it that at least the Lakeview Generating Station was heavily insulated with crocidolite? Correct?

30 MR. TO: That's correct.

DR. DUPRE: Do you have any notion in corporate

DR. DUPRE: (cont'd.) memory, undoubtedly away back, because this would have been installed a long time ago...as to why crocidolite would have been chosen?

MR. WILSON: I certainly don't, Mr. Chairman.

MR. TO: Crocidolite is a special type of asbestos. It has a special property, thermal property, as well as a special type of tensile strength, and it was chosen for the purpose of insulating on circular services. It was chosen particularly for that purpose, that it has thermal insulating properties as well as mechanical properties, to do that job.

DR. DUPRE: Can I just go back to the interchange between Mr. Laskin and Dr. Wills. If for the purpose of summarizing asbestos results during insulation removal, you are apparently able to discover what type of asbestos is being removed, does this mean that you might have the capacity to try to figure out whether a particular worker, who, say, came down with mesothelioma, had been exposed to one type of asbestos as opposed to another?

For example, if, let us say, someone comes along and all you have is this table, but you've got Lakeview batting one thousand in three at bats on crocidolite, does this enable you to say so?

DR. WILLS: I'm afraid I don't totally understand your question.

DR. DUPRE: Okay. Well, let's just go back quickly to the point that Mr. Laskin was asking you about, which as I understood it was, are you able, when you examine a worker who shows evidence of asbestos disease and has a record of employment in the company, are you able to get some of the type of asbestos that he was exposed to, whether crocidolite, amosite and chrysotile, and my question simply looking at table six is, whether table six indicates that Hydro may have a capacity to identify certain asbestos types in certain locations?

DR.WILLS: Well, I don't know how helpful it would be, because if a person has a mesothelioma, they have a mesothelioma, and we think of mesotheliomas as being asbestos-related. There's some debate as to whether or not some kinds of asbestos are, you know, less likely to cause a mesothelioma than others, but I can't feel very comfortable looking at asbestos, different asbestos types and commenting on their mesotheliomagenic, if you'll pardon the word, potential.

So I don't know how useful that particular information would be. If a person has an asbestos-related disease, you consider it that.

DR. DUPRE: I don't know either, Dr. Wills, because I am now as abundantly conscious as you are of the scientific debate that surrounds asbestos type.

At the same time, I'm also conscious about the extent to which in any of a number of jurisdictions it seems to be part of the conventional wisdom that it would be prudent to treat crocidolite as perhaps more hazardous than the other types.

Of course, this conventional wisdom, for what its worth, is faithfully carried over into Hydro's own HRI.

DR. WILLS: Well, that's...let me point out that when we think of the hazards associated with asbestos, we are thinking not just about the potential of developing mesothelioma, but also developing asbestosis, and I think that from a conventional-wisdom point of view there is a certain amount of evidence that indicates, in terms of fibrogenic disease, because of the mechanical and physical properties of crocidolite that it does have a greater fibrogenic potential.

But when you get down to looking at the different fiber types and their carcinogenic potential, then there's an awful lot of debate.

You know, you are not on very comfortable or solid ground.

DR. DUPRE: Absolutely. It's just that we'll never solve this puzzle unless we exploit such opportunities as we have to have information, and all I'm saying is, you see, as a layman, if it is possible, as table six seems to indicate, that there do exist some records that indicate that certain asbestos types have been used in certain locations, it may be one way to solve this puzzle, eventually, one way or the other, if its possible...

DR. WILLS: Well, perhaps it would give us some sort of a clue or indication, but when you think of the latent period associated with the development of a mesothelioma as being, what, twenty, thirty years, then looking at the three mesothelioma cases that we have now and going back twenty to thirty years and saying what kind of asbestos type was used in that station, I think it's a very academic exercise and the information you get is totally unreliable.

DR. DUPRE: Just one completely different and final question. Having swung from one branch to another on the various decision trees, I'm very much impressed by the importance that you attach to the use of substitutes in the hazard-containing policy.

Your compendium, tab number seven, among other things, lists some asbestos substitutes at appendix four A.

My question is simply the...has to do with the extent to which you can enlighten me about the rather considerable, I am sure, capacity that a large technically-oriented firm like Ontario Hydro would have to satisfy itself about the relative safety of substitutes.

MR. WILSON: We are all juggling this question to see who answers it.

I really am going to ask Mr. To to answer this question.

5 MR. WILSON: (cont'd.) It's important that we are not jumping out of the frying pan and into the fire. That's all I'll say.

10 MR. TO: Generally speaking, there are three kinds of asbestos substitutes available for our thermal insulation materials. One is the aluminum silicate material, the other type is a mineral wool, and thirdly, fiber glass.

15 Generally speaking, those are the three substitutes used in place of asbestos for thermal insulating materials.

20 15 If you look at silicate, silicate, aluminum silicate has been in use or at least been known for some time as a natural material, and we have looked at...of course, when we looked at substitutes the first thing that came to our mind is would this material be more hazardous than the asbestos, and based on the information that we have, and based on our knowledge of the properties - chemical properties, physical properties and biological properties of these materials - silicate, aluminum silicate in particular, seems to be an inert material. Again, we are basing this on the available literature that we have, and we consider this would be more acceptable than asbestos.

25 20 Mineral wool, again, is a material that is in abundance, and we have reviewed the literature that we have had pertaining to mineral wool. Again, information seems to indicate that is a physiologically inert substance.

DR. DUPRE: When you use the term literature, you are including in that term literature that involves animal experiments?

30 30 MR. TO: No, we reviewed whatever information that we have had in our possession pertaining to any adverse data pertaining to exposure to mineral wool, and it's an

5 MR. TO: (cont'd.) industrial...based primarily due to what we know up to this time, you know, pertaining to that particular substance.

Then fiber glass, fiber glass is a glass silicate, again, and based on what we have reviewed and examined, we recognize there is a potential problem because of the physical dimensions rather than the chemical properties.

10 We looked at that and concluded that fiber glass is more acceptable to asbestos. This is basically what we have looked at on the three types of materials.

15 Oh, another thing that I might mention is the way that the material is supplied, particularly the fiber glass, the amount of dust generated is less than the dust generated from the bulk materials, from asbestos insulating material.

DR. DUPRE: Well, may I, Mr. To, Dr. Wills, Mr. Wilson, thank you all very, very much for giving so generously of your time this afternoon. We are thankful to you indeed.

20 The Commission will now rise until nine a.m. tomorrow morning. I repeat that, nine a.m., because that's a change from ten o'clock, which at one stage of the game may have found its way onto your schedule.

THE INQUIRY ADJOURNED

25 THE FOREGOING WAS PREPARED
FROM THE TAPED RECORDINGS
OF THE INQUIRY PROCEEDINGS

Edwina Macht
EDWINA MACHT

